Lectures

ON SOME

IMPORTANT POINTS IN CONNEXION WITH THE

SURGERY OF THE URINARY ORGANS.

Delivered at the Royal College of Surgeons,

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LECTURE II.

The Systematic Diagnosis of Urinary Disease.—Digital Exploration of the Bladder, and its results.

[THE lecturer commenced by illustrating in detail a systematic method of arriving at a correct diagnosis of diseases affecting the urinary organs, one which he believed might be found adequate to the solution of a very large majority of all the cases met with; and continued]:—

But it happens that the most patient application of the inquiry described sometimes fails to reveal the cause of symptoms, although it may, and often does, arouse suspicions as to what that cause may be. Thus the evidence available in an exceptionally obscure case may point in the direction of impacted calculus, which is associated usually with extremely painful and frequent micturition and muco-purulent urine, or may indicate the presence of a growth within the bladder (not cancerous deposit in its walls, which is readily recognised from the rectum), such growth being usually associated with long-continued or repeated bleeding, and sooner or later depositing in the urine organic débris, the structure of which may determine its character. In either case no permanent relief is attainable without operation. Besides these, there is sometimes, as in the cases of elderly men who are unable to pass any urine without very frequent catheterism, another cause — viz., a distressing cystitis, not amenable to relief by ordinary treatment, because the cystitis is maintained by the very agency, the catheter, without which the patient's existence is impossible. A vicious circle of actions is thus set going, which can only move from bad to worse. In all the conditions thus described the patient's fate is sealed; but even this grave fact does not disclose all the severity of his lot, since the fatal event almost inevitably arrives through severe and protracted suffering. The painful experience which I have had of misery of this kind, and for which in the later stages of disease little relief is afforded except through the influence of narcotics, has long impressed me strongly with the hope of finding a means of escape for some of these patients equally from the fatal issue and from the suffering which precedes it. In January, 1869, I opened the bladder above the pubes for a man about sixty years of age in University College Hospital, solely to afford relief in cystitis of the kind described, no attack of retention being present, and maintained a tube there some weeks to drain and relieve the bladder. I repeated this proceeding in six other cases, affording some relief, but with less of permanent benefit than I had hoped to attain. The opening was ill placed for drainage purposes, it became sore from contact with urine, and kept the patient for the most part confined to his room. But the last case in which I did this operation impressed me so strongly that from that time I determined on a different course, which issued in the plan which I have now put in practice nearly four years, and the results of which I shall lay before you without reserve to-day. But first I ask you to listen to a brief report of the case referred to.

Mr. C——, aged thirty-one, I first saw in 1870. For six years he had had occasional attacks of bleeding. After two or three visits he took a sea voyage for his health, and thought himself cured. But he came again in October, 1874, having had several fresh attacks recently. I sounded him and felt nothing; some fusiform cells were observed in the urine and are sketched in the note book at that visit, and the bleeding was believed to be vesical.—1876: Had continued to bleed more frequently. Found three ounces of residual urine, and advised use of catheter daily, which checked the bleeding, as when there was no straining there was no blood.—1877: Passed shreds of organic tissue; sounded; nothing felt; weaker; micturition frequent and painful.—1878: Micturition so painful that I resolved to open the bladder by a supra-pubic opening so as to enable the patient to obtain some sleep, which has been terribly broken by constant micturition. The operation afforded some relief, but he gradually became weaker and sank about a month afterwards. At the autopsy a single pedunculated tumour was found in the bladder; it resembled in form and size an ordinary fig. It could have easily been removed had the supra-pubic opening been enlarged.

It was clear to me from this case that a careful sounding had proved incapable of giving me sufficient information relative to the presence of a considerable growth within the bladder. Supposing that I could but once have put my finger there, instantly discovering, as I should have done, that easily removable tumour, how different would have been the issue of that unhappy case! He might have been enjoying life and health to-day. What, then, was to prevent me in future, under circumstances of equal gravity and like obscurity, from determining the presence or absence of such a growth by the direct sense of touch, as I could so easily have done there had the necessity for applying it ever occurred to me? The question which therefore naturally presented itself was, From which point could I best examine with my finger the whole interior surface of the bladder; from the perineum or from above the pubes? After experiment on the dead subject the answer seemed not doubtful. With a small opening into the membranous urethra from the perineum, just large enough to admit the finger to arrive at the neck of the bladder, and making at the same time firm supra-pubic pressure, I could explore without difficulty every portion of the surface described. If then by means of anæsthesia I could attain that degree of flaccidity and inertia in the living body which is natural to the dead, why should I not be able to effect as easily the exploration in the former case as in the latter?

Opportunity for making the experiment soon occurred, partly in the course of a lithotomy case or two; and finally, in the person of a patient who came under my care in 1880 with severe and obscure symptoms. At the outset of the case I met with a small calculus and crushed it, but subsequently found another, as I thought, impacted, not being able to remove it by the lithotrite. In order to ascertain the real state of the case I decided to explore the bladder, and did so in November, 1880, Mr. Ceely of Aylesbury and others being present. Having made a median incision and complete etherisation having been attained I felt, as soon as the finger entered the bladder, no difficulty in exploring the interior; finding to my surprise not a stone, but a single pedunculated tumour of considerable size, with a thick coating of phosphates on its surface. It was this coating, with the immobility of the mass as previously determined by the lithotrite, which had suggested to me the presence of impacted calculus. I seized the tumour with a small lithotomy forceps and twisted it off at the neck. The patient made a rapid recovery; had no return of the growth or any sign thereof, and has enjoyed excellent health and activity ever since, as he does to this day. The operation took place nearly four years ago, but I waited a year and a half before presenting the case to the Medical and Chirurgical Society, having then adopted the proceeding in three other cases. I then proposed the systematic examination of the bladder by means of the finger, as a desirable, and indeed as a necessary proceeding, in obscure disease believed to affect the bladder, when all other means had failed to detect the cause, distinguishing the method by the term "digital exploration of the bladder." In the surgical proceeding itself there is nothing new, nor did it ever occur to me that it could be claimed in that sense by any modern surgeon. Like others, I had often opened the urethra from the perineum for stricture, for chronic and obstinate urinary fistulæ, for impacted calculus, for calculus sacculated in front of the neck of the bladder, and after lithotrity, when the patient could pass no urine except by catheter, and was unable to introduce the instrument, &c. But the object with which I proposed to operate was a new one, inasmuch as it is solely the exploration of every part of the bladder with the end of the finger in order to diagnose its condition, and not necessarily to perform any further operation, unless this should be required by the

discovery of a tumour or other condition admitting of surgical treatment. To effect this purpose, then, it was extremely important to determine what is the shortest and easiest route for the surgeon, as well as that which would incur the smallest amount of risk to the patient.

At first sight it appeared that an incision involving the neck of the bladder must be necessary; and that the operation must therefore be some form of cystotomy. Happily, experiment proved that a section carried from the perineum to the urethra, in other words, "external urethrotomy," would suffice for my purpose. Now, this is a procedure almost without risk. The mere section of parts from the perineal surface in the median line, down to any part of the urethra anterior to the prostate, is one of the simplest and least dangerous of surgical operations. Old, however, as is the proceeding in question, whether it be termed "external urethrotomy," or, as with the older French surgeons, the quaint term of the "boutonnière" be adopted (the very term shows how simple even at that period they considered it), the mode of performing it appears to me not altogether a matter of indifference. I shall in the first place, however, premise that there is no longer any doubt that the median incision of the perineum opens the shortest road to the neck of the bladder, and I shall briefly describe the steps of the proceeding which appear to me the most desirable to be followed, in order to attain the end proposed with ease and safety. The position of the patient and the general accessories necessary are those required for lithotomy, while the various steps of incising are those now generally adopted in the first stage of median lithotomy. When these are completed and the tip of the finger first enters the cavity of the bladder, the morbid condition is generally recognised at once, and with it therefore the nature of the disease for which the exploration was undertaken. Whether or no, the operator maintaining the index in its place, and firmly pressing it into the cavity of the bladder, rises from his seat if necessary and stands, so that by means of his own right hand he can make firm supra-pubic pressure and bring the upper surface of the bladder into contact with the left index. He rapidly ascertains the presence or absence of tumour; if absent he will, by slightly changing the point of the supra-pubic pressure, and also as far as he can the direction of the tip of the left index, examine bit by bit the whole internal surface of the bladder. He will recognise or not, as the case may be, the smooth satin-like surface of the healthy lining, with here and there only a slight inequality; or he may find an irregular surface, elevated by interlacing lines of fibres, with little depressions and interstices; roughened patches on a surface otherwise smooth; an adhering scale of earthy matter, perchance, or a small calculus half exposed, half hidden; lodged rather than sacculated in a corner, &c. Indeed it is difficult to say at present what may not be found, as fresh experiences have brought to light conditions to some extent not heretofore recognised, of which I have yet to speak. Hence there are few occasions, I confess, which for me have excited a more lively interest than the moment at which my finger enters a bladder the condition of which has been a theme of keen inquiry and speculation for some months or even for years before. But, supposing that it is at once apparent from the examination just described that tumour is present, the operator must next deliberately study its size, form, situation, and mode of attachment to the bladder. This is an extremely important matter, and will be considered, as well as the best mode of removing the growth, in the next lecture devoted to the subject of vesical tumour. On the other hand, no growth having been found, the next steps of the proceeding will depend on what other morbid or irregular condition has been revealed. Supposing that either some calculus or other matter has been removed, or that the bladder and urethra are merely to be maintained in a state of rest from their functions for a few days, free exit for the urine must be secured. For this purpose a soft but stout india-rubber tube is to be fastened with one end (smoothly bevelled) just within the bladder, the remainder occupying the wound and protruding so as to convey the urine direct to some vessel suitable to receive it. If the object of treatment is that last described, the tube should remain a week or so, unless its presence occasions pain, in which case a large soft catheter may be tried, or, as sometimes happens, it is better after the first or second day for the urine to take its course through the wound. In any case the bladder is to be rested and drained, at least for a week; even a longer period is sometimes advantageous. The relief from frequent habitual catheterism thus afforded to a patient who for months has been compelled to use a catheter twelve times or more every day is so great that he often desires that the term of rest may be extended. I have seen some very remarkable examples of relief arising from the process, and relief of a permanent character.

I shall now briefly advert to the analogous operation in the female, when dealing with obscure forms of disease, for the purpose of diagnosis and treatment. For digital exploration of the female bladder all that is needful is sufficient dilatation of the urethra to admit the introduction of the index-finger, which may be accomplished by means of a three-bladed dilator or otherwise, after which the facility for examining is, of course, greater even than that attained in the male. "Dilatation," however, always comprehends, in whatever way it is rapidly performed, a certain amount of splitting or rupture of the urethra; which, however, I have never known to be followed by any permanent injury. I have thus examined five cases of women for the purpose of diagnosis, and have found tumour in two, and removed both without any further enlargement of the opening. These will be included in the series of cases appended, forty-two in number, which I desire to present as the sum total of my experience of digital exploration of the bladder, together with the results which have followed in each case.

[The lecturer then presented a brief epitome of the histories of all the cases on which he had performed digital exploration of the bladder, omitting for consideration at the next lecture the twenty cases of tumour. He continued]:—

In carefully analysing the twenty-two cases which remain after subtracting the twenty cases of tumour, there appear to be four chief forms of vesical disease in which the operation of opening the urethra to withdraw the urine altogether by an artificial route, and so suspend the functions both of the bladder and urethra for a time, may render good service. The first class consists of those cases, not unfrequently met with, in which all the symptoms of chronic cystitis have existed for a long period and in a severe degree, and which persists in spite of long-continued and appropriate treatment; while at the same time it is understood that the absence of material cause for the cystitis, such as stone, stricture, vesical incompetence, &c., has been ascertained. Examples are Cases 2, 24, and 31 of the series.

The second class of cases includes those examples of prostatic disease in which the bladder has to be emptied by the catheter many times in the twenty-four hours, and in which painful chronic cystitis is obviously aggravated, if not maintained, by the necessary process of relief. Cases 5 and 34 are examples. The third class embraces those cases in which impacted calculus or adhering calculous matter may be suspected, or may be known to be present by sounding. Examples are Cases 3, 4, 7, 22, and 36. In the fourth class I place those cases in which painful and very frequent micturition or bleeding, separately or combined, have long existed, without signs of cystitis, the urine being clear, free or nearly so from mucous or purulent deposit, the cause of these symptoms having baffled the most careful inquiry. On exploration being made, no organic change is discovered, no light is obtained on the diagnosis of the case, but the functions of the bladder and urethra are suspended for a week or so, and the patient gets perfectly well. Of this remarkable history there are no less than six examples in the series, of which three (viz., Cases 8, 14, and 35) perfectly recovered, besides three others in which great improvement took place, but not complete recovery: Cases 17, 23, and 41. The result of operation undertaken in the circumstances described, as a last if not almost hopeless, resource, has been very remarkable. I do not at present pretend to explain the pathological condition in any one of them. Besides, there was one case, already referred to, in which adhesions between the mucous lining of the bladder were separated by the finger (Case 12). In one case of division of the neck of the bladder, which was extremely tight and rigid (Case 41), which was greatly benefited, and one case of hæmaturia, in which the surface of the mucous membrane was studded with numerous minute villous papillæ, removed by scraping, followed by application of caustic (Case 37), and in which, five months after operation, there has been no sign of return.

I cannot but hope that the results reported in these cases may lead to a further employment of this simple operation in cases of like obscurity, feeling sure that much valuable relief to suffering, as well as prolongation of life, may be attained by a judicious application of the proceeding.

Lecture

INTRODUCTORY TO THE STUDY OF

INFANTILE SYPHILIS.

Delivered at the Hospital for Sick Children, Great Ormond-street,

BY ROBERT J. LEE, M.D., F.R.C.P. LOND.

GENTLEMEN,—It is impossible for me to urge upon you too strongly the importance of the study of infantile syphilis. It is the key to the solution of many of the most interesting questions connected with this disease. Trousseau characterised it as "one of the most delicate and most controverted questions in pathology,"[1] and in the same lecture remarks that "syphilis, in whatever way it may be engendered in the system, holds the first rank among those affections the study of which belongs exclusively to clinical science, and does not admit of assistance from any other science. We are shut out from experiments on the lower animals; and experiment limited to the human species is, as you know, liable to a thousand sources of fallacy. It is perhaps by taking syphilis as an example that one would arrive more certainly at the way to give an account of curative methods and proceedings, and of the scientific value of medicine when left to its own resources. Impressed though I am with the importance of this study, convinced though I am of its profitable nature, even when problems are discussed for the solution of which the elements do not exist, I have shrunk from pursuing it, possibly from a sense of the magnitude of the task. I cannot but look back," he says, "regretfully upon the field which I have abandoned"; and, fully realising as he did the probable result of this inquiry, he observes: "Had we only succeeded in establishing on a solid basis the pathology of syphilis in early infancy, the gain to science would have been very precious."

Now, in accordance with my plan of giving you such references as I think you may consult with benefit in regard to this, as I do in the case of other subjects, I would advise you to read the lecture of Mr. J. Hutchinson, in the fifty-third volume of the *Medical Times and Gazette*, 1876, p. 643, "On Colles' Law, and on the communication of Syphilis from the Fœtus to its Mother." There is also a contribution by Mr. Hutchinson on "The Transmission of Syphilis" in the last volume of the *British and Foreign Medico-Chirurgical Review*, 1877, p. 455, which may be regarded as a part of the former paper. The recent work of M. Fournier, "Syphilis in Marriage," translated by Mr. Lingard, is, I think, the most valuable contribution from a clinical and practical point of view that has yet been made, and to this, as well as those by Mr. Hutchinson, I shall have occasion to refer frequently. The work by M. Diday[2] on Infantile Syphilis is much to be admired for the style and spirit in which it is written, but I cannot say that I have derived much information from it, or much assistance in deciding some of the more important and difficult questions connected with this subject. Assuming that you are well acquainted with the ordinary mode of syphilitic infection in the adult and the sequence of symptoms which occur in such a case, let me ask you to consider that other mode of infection which is almost inseparable from the subject of infantile syphilis—namely, the infection of the mother through the influence of the fœtus, or fœtal infection. As there are three individuals concerned in such cases—the father, the mother, and the infant,—we have to study the disease under three aspects: the first, that of acquired syphilis, with which, as I have assumed, you are well acquainted; the second, that of syphilis in the mother by fœtal infection; and the third, that of inherited syphilis, or that class of symptoms which characterise the disease when it occurs in the infant, and is inherited from one or both parents.

It may surprise you to be told that it is not more than thirty years ago that very general doubt existed of the possibility of a woman being infected through the ovum. It was believed that infection of the mother was always the result of direct inoculation—that is, in the ordinary way in which it occurs in the case of men. Trousseau states distinctly that at the time he began to work at this subject, inoculation was the only recognised mode of infection; and we find Mr. Hutchinson stating of a paper read by him before the Hunterian Society in 1856: "The special object of my paper was to convince the profession that this mode of receiving syphilis was not only possible, but in frequent operation, and that the taint thus obtained was peculiar, and, for one thing, far milder than that which follows a chancre." It would not be fair to conclude from this that the opinion which was then being contested had been universal, for if we turn to the short treatise of Sydenham on the Venereal Disease, written about two centuries ago, we find this statement: "The disease is propagated by generation, whence it is communicated to the infant by one of the infected parents."[3] Now, there is a note by Dr. Swan in the translation from which I have quoted the above to this effect: "The first" (i.e., infection by generation) "I much suspect, having never seen the venereal disease communicated from parents to their children; which has made me imagine that physicians have been somewhat too credulous in this affair, that if possible they might consult the reputation of their patients, by assigning if not the real at least a probable cause of their indisposition, and by that means acquit them of blame." What were the chief reasons for this retrograde course of medical knowledge I will not now stay to explain, as it is rather more of literary than practical importance.

At the present day no one, I imagine, would doubt for one instant, not simply the possibility of infection of a woman by the fœtus, but if he had any such experience as this hospital affords, of this mode of infection being, as Mr. Hutchinson says, "in frequent operation." I will now put the question to you, What do you suppose is or may be the probable mode in which infection by the fœtus is effected in this class of cases? Assuming a proper knowledge of the physiology and anatomy of the various structures concerned in the process of generation, in what way would you imagine it likely that the syphilitic virus passes from the fœtus to the mother? The common answer would, I suppose, be through the blood, or, in the words of Mr. Hutchinson: "The method suggested is that of direct blood contagion by the influence which the fœtal blood exerts on that of its mother," and on this assumption the conclusions contained in the paper referred to are founded. For practical purposes it may possibly not make much difference what the exact mode of infection is, for, after all, the clinical features are what we have to study, and clinical facts must form the basis of the general laws we aim at establishing. The answer which Fournier makes to this question is more guarded and more philosophical. He expresses his ignorance in the form of a query. "How does the syphilitic impregnation extend from the fœtus to the mother in the case we have studied? Does maternal infection result from contact with the fecundated ovum, and is it produced in the Fallopian tubes or in the uterus at the period when the ovum is connected to the mother by no organised graft? Or is it produced later through the medium of the circulation? Or does it pursue any other special unknown method? Upon this point we confess ourselves completely ignorant."

I shall attempt an explanation of the mode of infection, which is somewhat different from that of fœtal blood infection; and how far it is more probable than the latter, and more consistent with the facts of physiology, you will be able to judge for yourselves. It is very rarely that an opportunity offers for us to examine the relation between the ovum and the uterus in the very early period of pregnancy; and you must pardon me if I assume that some of you are not personally acquainted with this particular subject of physiological research. You must therefore take for granted that what I say on this subject is most certainly true and beyond all question of dispute. The human ovum when it leaves the Graafian vesicle may be impregnated apparently before it enters the Fallopian tube, or as it passes down the tube. When this occurs is not of much importance, for there is no sufficient reason for thinking that infection could take place before a connexion of some kind had been established between the ovum and the maternal tissues. The question we have to consider, therefore, is this, When and how is a relation of a distinct nature first established between them; for it is not reasonable to think that infection could take place from simple contact of the impregnated ovum with the surface of the Fallopian tubes

[1] Clinical Medicine, vol. iv. (Sydenham Society's Works, Lect. 81).
[2] New Sydenham Society's Transactions.

[3] Sydenham's Work, Swan's translation, p. 306, 1749. The Epistle of Dr. Henry Paman to Dr. Sydenham, which led to this treatise being written, is dated Lambeth House, 1679-80.

or uterus, and any supposition of this kind would at present be quite incapable of proof. For some days after impregnation the ovum is undergoing those changes which result in the formation of the villi of the chorion, so that at the end of from a fortnight to three weeks the ovum has become a globular sphere of nearly an inch in diameter, covered in every part with these outgrowths of the chorion. Now, the process of attachment to the maternal organism is begun, which essentially consists of an absolute planting or grafting of the villi into the maternal tissue. If we take a single villus and remove the decidua in which it is embedded, we can understand how the actual substance of the chorion, and consequently a portion of an infected ovum, is absorbed into the maternal system. No development of bloodvessels has yet taken place. That is a subsequent process, and plays no part in the actual union of the ovum with the uterus. If you take interest in such details as these, which I have purposely abbreviated as much as possible, I may refer you to a fuller statement of them in a lecture published in THE LANCET.[4] We may defer any speculation upon the different effects which might reasonably be expected to follow inoculation produced in the manner described, as compared with those resulting from fœtal blood infection. In regard to the latter, it is difficult to form any clear idea of the mode in which the poison can pass from the fœtus to the mother through the blood. We know pretty well what are the anatomical and physiological conditions of the placenta, and we recognise the fact that scarlatina, variola, ague, and probably other similar diseases, are transmitted from the mother to the fœtus. There is no reason why by a similar agency fœtal influences should not pass in the opposite direction. How far beyond our clear perception is the solution of many questions relating to this subject I need not remark; nor would I encourage you to hope for much assistance from physiological considerations, as compared with what may be expected from clinical study.

My chief object in this lecture is to point out the necessity of waiting awhile before we form any theories on the questions which have interested most investigators in this line of research. For example, Mr. Hutchinson has tried to prove that there are three modes of infection, characterised each of them by special features—namely, acquired syphilis, the first and common form; inherited syphilis, or that form which the disease exhibits in infants and is derived from one or both parents; and the third, a new form peculiar to the mother, and derived by her not as in the first of these three, directly from the father, but by fœtal blood infection, or at least through conception. It is very important indeed that, although we may admit the fact that the features are different in each of these cases, we should not at present make up our minds as to the disease being transmitted in its entirety. It may be or it may not be so. Clinical facts, as far as I have been able to understand them, are quite as strongly in favour of the disease being transmitted in different degrees as in its entirety. I mean to say that clinical facts rather tend to the view that the special features of each of these three forms may be nothing more than such modifications as we know in other diseases the special virus seems liable to undergo. It is true that since 1876, when Mr. Hutchinson published his paper, the whole question of the effects upon certain diseases which are produced by transmission has been seriously considered and investigated, and I think it will be sufficient if we simply allow that by transmission certain modifications appear to result, but to what cause these modifications are due we are not in a position to explain fully.

It appears to me possible for a virus to produce a partial effect on the human system, and not to complete in one immediate and continuous exertion of its influence all the effects which we are accustomed to associate with the idea of entirety. I should say that cases of whooping-cough, for instance, which have been abruptly terminated after slight symptoms, and in which a second infection after a period of months or more results in what would appear to be a second attack, are instances of only partial infection in the first instance. There is the other view, which equally well explains such cases—namely, that the human system has been in a certain condition other than that of health, and the full effects of the virus have been arrested or modified. Whichever view we incline to, let us be prepared to receive all evidence, for or against, with perfect impartiality.

(To be concluded.)

[4] Physiology of the Ovum, vol. ii., pp. 549, 621, 1873.

THE QUESTION AS TO THE IMPORTANCE OF FLEXIONS AND DISPLACEMENTS OF THE UTERUS.

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(Concluded from page 1066.)

WE may now proceed to consider the general questions as to the importance of uterine flexions and displacements as affected by the statistics and arguments of Vedeler and Herman. Vedeler's statistics (in his first paper) are intended to afford negative evidence, by proving that uterine flexions are very common in women who are supposed to be in good health. He considers that the unimportance of flexions is proved also. I have already considered the question as to how far Vedeler is justified in assuming that the subjects of his observations, the so-called healthy series, were really in perfect health. It may be conceded certainly that his figures prove that uterine flexions are common. This is no proof that they have no importance, nor that they have no influence in producing disease of other kinds. So far as dysmenorrhœa is concerned, the statistics offered by him in his second paper do not, as I have already stated, bear out his conclusions. On the contrary, they show a decided preponderance of this symptom in the cases of flexion compared with other cases. In his remarks on the pathology of dysmenorrhœa, he fails (and the same applies to Herman's paper) to consider what seems to me to be a most important element—viz., the effect of flexions in producing a flattening of the uterine canal, and thereby bringing about an obstruction. This kind of obstruction is common, and may be present to a marked degree in cases where no difficulty whatever is felt in introducing the sound. Dr. Herman's two papers on dysmenorrhœa I have already commented on particularly.

I now proceed to make a few remarks on the whole question. It will hardly be necessary to urge that cases do occur in which severe flexions of the uterus give rise to great suffering, to great pain, and to various inconveniences. Those who deny that this is the case are not in my opinion open in a reasonable way to conviction, and arguments are lost upon them. To such, therefore, I do not address myself. The question now arises, What is the minimum amount of alteration in the shape or position of the uterus which shall be allowed to be capable of producing suffering? It is evident that there must probably be a number of gradations and degrees of suffering, and such variation will be dependent not simply on the degree of the alteration in the uterus, but determined to a great extent by the condition of the general health and by the nervous impressionability of the individual. To proceed from the other end of the scale and to begin with a normal state as regards the shape of the uterus, there will be first no symptoms, and in many cases no symptoms even when the shape of the uterus has become abnormal, but in more decided cases of flexion there will be a greater liability to the occurrence of symptoms. It may be inquired, If the severe flexion is a disease in one instance where the severe symptoms are indubitably caused by it, what is it in other cases where either no symptoms or only slight ones are detected? The immediate relief afforded by raising up the fundus of a severely retroflexed uterus by the sound or by a pessary has a significance which cannot be mistaken, and establishes a principle which it is hard to gainsay. The true test of a principle is its application to practice. I claim to have tested a certain principle in a long course of practice, and with uniform results—that is to say, the clinical observations which I have made in applying that principle have always been such as have been in conformity with the terms of the proposition defining the principle. When cases in large numbers and observed successively over a long period agree in the results of the test which is applied to them, that must be held to constitute a fact of some value. It will be obvious that such a course of observation can only be really criticised by one who has made a like experiment. Mere denials of the truth of the principle in question by those who have never attempted to apply it in practice are of little weight.

The principle in question may be defined as follows:—

1. The uterus best performs its functions when its shape closely approximates to what has been termed the normal shape, and when it occupies its normal position in the pelvis. 2. Alterations to any material degree in the shape of the uterus are liable to give rise to complaints on the part of the patient, and not unfrequently occasion severe symptoms. 3. These alterations in shape, coupled as they frequently are with considerable variations in the position of the uterus, are very frequently associated with altered conditions of the tissues of the cervix or body of the uterus. When so accompanied with tissue changes they rarely fail to occasion marked symptoms. 4. It is found that the symptoms or complaints of patients presenting these associated conditions (flexion *plus* tissue-change) are markedly relieved by adopting such procedures as are calculated to diminish the degree of the flexion, and thus to restore the uterus more or less completely to its normal shape and position. Further, it is found that the tissue alterations are favourably influenced to a marked degree by restoration of the uterus to its proper shape.

The foregoing propositions embody the results of my experience and observation, and upon that experience has been formulated a system which has been termed the mechanical system of uterine pathology.

It will be well to remark that the four propositions above stated embody results of observation only. The explanation of these facts which I have attempted in constructing a system of pathology may of course be right or it may be wrong, but, if wrong, it will be necessary to construct another which shall equally well with that which I have suggested explain the facts I have above set forth in the shape of propositions. Here let me state that no amount of argument will disturb my conviction—a conviction derived from multitudes of observations as to the accuracy of those facts. They have to be explained and allowed for in any theory which can be considered, to me at all events, satisfactory. It must be remembered, in the next place, that my experience is not singular, that very many eminent gynæcologists treat their cases, and have treated them successfully for years, on principles similar to those above defined; and that the number of those who, by one procedure or another, find it necessary for their patients' comfort to regard the shape and position of the uterus as important factors in the consideration is daily increasing. It is not a little curious that some of those who undervalue the importance of flexions as factors in uterine diseases—e.g., in cases of dysmenorrhœa—not only adopt the most vigorous mechanical procedures for relieving their patients, but carry out a procedure, the treatment by graduated bougies, which is in a high degree calculated to restore a flexed uterus, for a time at all events, to its proper shape and position. On a review of the clinical facts in overwhelming numbers which show how very decidedly symptoms and complaints are relieved or removed by procedures calculated to strengthen the uterus and sustain it in its proper place, it must be concluded that these distortions and displacements are of importance.

There are other classes of evidence available in reference to the question as to the importance of uterine flexions. The clinical evidence which I have been able to collect (1) as to the early history of flexions, and (2) as to the effects of flexions in originating and perpetuating other morbid conditions of the uterus, is very extensive, and is of such a character as to show the highly important part which they play in the pathology of the uterus. In the fourth edition of my work on the "Diseases of Women" I have given great attention to the consideration of the early history of the flexions of the uterus, and have shown that they owe their origin in most cases to defective tonicity associated with physical weakness arising from impaired nutrition of the tissues of which the uterus is composed. I have pointed out that a uterus which is defectively nourished is apt to lose that inherent firmness and resistance on which it is mainly dependent for the preservation of its normal shape, and that it readily under these altered conditions assumes a flexed form. Further, that this combined softness and flexion constitute in all probability what may be termed a primary predisposition to more decided disease. The number of cases in which the uterus presents such abnormality and softness, associated with more or less marked flexion, must be very great. I have published two or three papers devoted to the demonstration of the frequency with which a previous history of malnutrition is proved as an antecedent of almost all cases of chronic uterine disease.

My own inquiries, carefully conducted, would therefore lead me to conclude that in all cases—and they are very numerous—where the nutritive action has been for some time below the normal standard of health, the uterus will be likely to be found either slightly flexed or in a state, as regards its tissues, which may on very slight provocation go on to a more severe degree of flexion. Those young women who are thus imperfectly nourished will be more likely to become the subjects of acute flexions, who either by work or excessive physical exercise put such a strain on the uterus as it is under the circumstances incapable of resisting. It will be evident that as regards symptoms, these will be liable to great variation, according to the state of the general health, the requirements as regards work or exercise, the duration of the alterations in the uterus, and numerous other surrounding circumstances; and hence it will necessarily occur that we often hear nothing of a case medically until a long interval has elapsed (as is proved by analysis of the patient's previous history), and until the severe symptoms have forced upon the patient the necessity for medical attention. No doubt in many cases in which only the preliminary stage of disease exists the health improves. In a multitude of other cases the flexion indubitably exists, but after a time toleration of its presence is attained. A childless marriage or a dangerous pregnancy or miscarriage tells the early history of the individual. If these conclusions as to the origin of flexions be correct, it becomes sufficiently evident why in so many cases flexions may exist without apparent, or we will say without well-marked, symptoms. The subjects of these imperfectly nourished cases are not exactly ill, but neither can they be said to be well.

The further question as to the relation between flexions and the other changes in the uterus remains. This cannot be adequately discussed here. The whole question will be found to turn on the nature of the connexion which subsists between flexions and congestions of the uterus. The clinical evidence in favour of the idea that the circulation in the uterine tissues is capable of being markedly interfered with by a bending of the organ appears to me to be overwhelming. In a case of acute flexion suddenly produced or suddenly exaggerated the congestion which occurs is generally very severe in degree. Clinically I have observed this congestion to disappear in the most rapid manner on straightening the uterus. What is true of these acute cases is true also of the less severe ones. A chronic slight congestion is liable to be produced in all cases where the uterus assumes a decidedly flexed shape—that is to say, congestion is liable to occur sooner or later. The congestion so produced has the effect of permanently enlarging the part of the uterus affected; it has also the effect of hardening the tissues and of impairing the flexibility of the uterus, and to give rise to various changes known as endometritis, endocervicitis, &c.; and so long as the flexion remains, the obstruction to free circulation in the uterus continues, though no doubt in certain cases the circulation becomes more free when the period of toleration has been arrived at. Thus, to recapitulate the clinical and pathological history of a typical case, such as that of a young woman extending from the age of fifteen to twenty-five. In the first place there are general debility and malnutrition of the body at large; the uterus becomes soft and unduly flexible; exercise or exertion being excessive, the uterus becomes flexed, at first slightly, then decidedly, and at the same time generally descends lower in the pelvis. After a time the uterus becomes congested and swollen as a whole, but more particularly at the lower part of the cervix and the fundus. Then occur disturbances of the functions of the mucous membrane, and congestions in the body and cervix, one or both. Next, congestive hypertrophy of a more permanent character takes place in the parts originally swollen. Then there is more or less marked interference with the various functions of the uterus. Marriage, pregnancy, and childbed introduce further complications.

Beyond this mere outline of the facts and nature of the arguments, which from the positive side confirm the truth of the doctrine that flexions and displacements are of great importance, it is here impossible to extend my remarks. I have endeavoured to represent the facts adduced on the negative side fairly and dispassionately. The more closely the line which separates the physiological from the pathological is scrutinised, the better it will be for the interests of truth. The interesting point is to determine how and why the condition of health begins to give evidence of failure; and I am therefore quite open to admit the value of negative evidence duly scrutinised and properly classified. Physiology and patho-

ogy cannot be contradictory, but it must be remembered that it has occasionally happened that pathological and clinical observations have been the means of enabling us to define more accurately certain important physiological laws.

In conclusion, I would remark that there appears to me to be two principal reasons why the importance of uterine flexions as factors in uterine disease is doubted by some and disbelieved by others:—1. That the complaints made by women are too often treated as fanciful, whereas what is really wanting is a discriminative analysis of such complaints. 2. A want of recognition of the influence of defective nutrition in producing such alterations in the tissues of the uterus as predispose to or constitute the first stage of serious and troublesome disease of this organ.

[ERRATUM.—In the preceding section of this paper, published last week, for "sacro-sciatic," read *utero-sacral*.]

Berkeley-square, W.

CONTRIBUTIONS TO AURAL SURGERY.

BY W. B. DALBY, F.R.C.S., M.B. CANTAB.,
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No. IX.—PERFORATIONS OF SHRAPNELL'S MEMBRANE.

THAT portion of the membrana tympani just above the short process of the malleus which covers a small space communicating more or less freely with the tympanic cavity, and which goes by the name of Shrapnell's membrane, possesses an interest when it is perforated altogether disproportionate to its uses in health. These uses begin as a protective membrane, and that they also end there I have convinced myself on several occasions by observing complete absence of this part when the hearing has been perfect. Perforations of the membrane of Shrapnell have received at various times brief notices at the hands of aural surgeons on the Continent and America.[1] There are certain points in connexion with this subject that will, however, I venture to think, be of sufficient interest to warrant the following remarks. When the tympanic membrane has been completely destroyed in the process of ulceration, this small area sometimes remains, and at other times is destroyed. In either case no particular importance attaches to this circumstance, since no especial symptoms manifest themselves. But there exist a certain number of cases in which the loss of tissue is altogether confined to the membrane of Shrapnell, the membrane proper remaining intact. Out of several cases of this nature, the notes of which I have before me, in no less than six the hearing was absolutely unaffected. In five others the only symptom complained of was loss of hearing, and it was sufficiently obvious, both from the history and the usual methods of examination, that the deafness in these five was due to the products of inflammation and its results within the cavity of the tympanum proper. No inconvenience of any sort resulted from the loss of the membrane of Shrapnell itself; and although there had at some distant period been a slight discharge, this had ceased for many years. The trouble, so far as the loss of the particular portion of membrane is concerned, had therefore passed; but with regard to others in which the hearing was good, there was more or less discharge from all; and although in some there was no pain, it was on account of the periods of deeply seated pain in the ear and in the region of the temporal bone that others applied for relief. In one case, that of a lady thirty-five years old, the pain had been most intense. For more than three years she had never passed a week without great suffering. There was a slight discharge. Local applications too numerous to mention had been poured into the external meatus. Hot fomentations and leeches only afforded a very temporary relief, and medicines of all sorts, such as are given for the so termed neuralgia, had been taken at various times without any appreciable effect. The periods of pain were confined to no particular time, although they prevented sleep for part of the night; they invariably followed any exposure to the external air, and for this reason the patient not only kept wool in the external canal, but covered the ear with a pad whenever she went out of doors. Beyond the entrance of air into the ear no influence, so far as could be judged, excited it. On examination of the perforation with a small eye probe the roughness of exposed bone could be felt, but the spot was not in any way sensitive to the touch. It seemed from a consideration of the points mentioned that the best prospect of relief would be probably found in an arrangement which protected the exposed surface for a considerable time uninterruptedly from the action of the air, and, finally, the most complete comfort was afforded by a thick covering of lycopodium powder. After the ear was carefully dried, the patient was directed to blow the powder through a piece of indiarubber tubing to which was attached a small piece of fine glass tubing. By carefully directing this along the roof of the external canal the powder was scattered over the perforation in a thick layer, which was allowed to remain for four or five days without being disturbed. Under the influence of this very simple treatment the discharge quite ceased, and the pain after a few weeks did not return. Beyond this no other protection was used, and, on the last occasion of seeing the patient, who was still using it, more than a year had passed without any return. It would appear that the reason why all previous forms of protection had failed lay in the fact that between the protection and the perforation there was a column of air.

In another case of a young lady who had a discharge from the ear since childhood, by a curious coincidence precisely the same condition was present in both ears—that is, the membrane of Shrapnell was absent, the other part of the tympanic membrane being intact; there was a profuse purulent discharge from the exposed surface; when the ear was syringed and dried the hearing was perfect; there were not any bone granulations at the seat of the perforation; and lastly, there was never pain. The small polypoid growths often observed in this situation, and so difficult to eradicate, are without doubt connected with dead bone, which extends slightly forwards, and so encroaches on the roof of the external meatus. Remembering this, I cannot but think that, in those cases where pain is complained of, this is also the direction in which ulceration has taken place—(i.e., on to the roof of the exposed canal),—as a point just anterior to the membrane of Shrapnell is frequently sensitive to the touch of a probe, although the probe may be put directly into the perforation without giving pain. In the case of another patient with this form of perforation, there had been a slight discharge since childhood, but no pain or loss of hearing.

[1] Vide writings of Burnett, Blake, Green, and an excellent description of this lesion in Politzer's Text-book.

SOME NERVOUS DERANGEMENTS OF THE HEART.

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(*Concluded from page 1069.*)

BUT it is not with disturbance of the reproductive organs alone such "reflex palpitation" is found. Professor Botkin, of St. Petersburg, has related a case where the palpitation was due to a floating kidney. Some time ago a gentleman came under my care whose heart-disturbance was clearly linked with irritation in his prostate gland; while in the case of a young gentleman sent up to me from Liverpool the most patient investigation could find nothing to account for the sudden onset of violent attacks of palpitation, until it was quite accidentally discovered that there had also recently been developed some irritation at the anus. They came together; and, what is more, they departed together.

There are, too, hearts whose action is persistently and continuously tumultuous; where there is a great deal of actual palpitation at times, with intervals when the heart's action is quieter, but never calm. This form of neurosal derangement, for the want of a better term, I have called "the badly behaved heart;" and very bad its behaviour is in some cases. Though most frequently met with in women, it is not confined to the female sex. Recently a Mexican consulted me with such a heart. To say that it was a perfect nuisance to him is to give a feeble description of the annoyance it caused him. In this case the disturbance was clearly related to mental worry. Beyond this it had no distinct relations; it had nothing to do with effort; it preserved no times nor seasons, and stood clear of indigestion. The only matter with which it was in any way linked was "flatulence;" and in that it only obeyed the law that when elastic gas in

the alimentary canal presses upon the heart, through the thin diaphragm, it embarrasses its action. A similar heart existed in a Jewess who attended Victoria-park Hospital, who was sorely troubled by her unquiet circulatory centre. Here the disturbance also had no definite relations: sometimes it was worse, sometimes it was better, but always tumultuous and uncomfortable, and resisted treatment for a long time; but yielded at last.

The strictly gastric relations of the arhythmic heart have not yet been clearly defined. There is, of course, the embarrassment caused to the heart by gas in the stomach, but that is not, strictly, a neurosal derangement. Then there is the disturbance caused by eating indigestible food, which somehow produces an intermittent halt, or other irregular action, often of the character of impaired energy, which is explained by some by the vague phrase "due to the fibres of the vagus." But beyond the two facts that there are unquestionably gastric as well as cardiac fibres in the vagus, and that the cardiac disturbance is coexistent with times of dyspeptic trouble, it is impossible to say anything. It is just as likely that the link lies in the fibres of the sympathetic as in those of the vagus nerve. From the fact that the cardiac disturbance occurs with periods of indigestion, either due to taking improper or indigestible food, or coming on when the system is wearied (the two circumstances when this blended condition is evinced), it is just as likely, and may be more likely, that the causal condition is often exhaustion of the organic ganglia. Of course I am not prepared to deny that amidst the varied strands of the vagus there may be gastric fibrils which transmit an impression originating in the stomach to cardiac fibrils—whether those of the inhibitory or accelerator strands. In the case of a surgeon in the Indian service who suffered from intermittency at times ever since he could remember, his trouble was greatly aggravated by his residence in India. Further, it seemed to follow very certainly upon a breakfast of ham and eggs with coffee during a winter stay in the hills of the north-west. In this case the trouble was greatly relieved by severe and prolonged exertion, and if the exertion were sufficiently great it disappeared altogether. A return to an easy life invariably brought back the intermissions. (This case illustrates well the great fact that while exertion reveals the incapacity of actual disease in the valves and muscular walls of the heart, it has no effect upon neurosal conditions—indeed, in some cases improves them.) I spoke a minute ago of the various strands of the vagus nerve. Among these are "inhibitory" fibres which hold the heart back, which "rein it in" (the coachman's reins), and "accelerator" fibres which hasten its action, corresponding to the coachman's whip. The first hold back the heart when their roots in the vagus are flooded with blood; the latter hasten the action of the heart when their roots need blood. Disturbances of the heart's action may be set up through either set of fibres. When any irritation, direct or reflex, affects the inhibitory fibres of the vagus, then the heart's action is slowed and enfeebled till any exertion is impossible. In fact, the recumbent posture in bed is enforced, and movement brings on faintness when these fibres are affected in suppressed gout; and great alarm results. This, indeed, probably constitutes the "gout at the heart" you read of. When the great toe begins to swell and burn these cardiac symptoms disappear. When the accelerator nerves are the seat of irritation, paroxysms of exceedingly rapid action are set up, where the heart will beat some 200 times a minute for several hours, the paroxysm passing away as suddenly as it comes on; but leaving the heart exhausted. Such cases have come under my notice lately. In one, seen at Torquay, the patient was apparently well when quiet, but any excitement was liable to bring on one of these paroxysms of accelerated action, which not only alarmed the patient at the time, but left her very prostrate for some time after. Beyond these conditions there is that known as "the irritable heart." Here there is a certain amount of inability to bear effort in the heart. When perfect quiet is maintained the heart's action is normal; but any effort, even assuming the standing posture, will cause a marked increase in the rapidity of the heart's action, far beyond what is normal. The consequence is that greater effort is only made on necessity, and the sufferer is considerably crippled for work. The circumstances under which the "irritable heart" is induced are physical exertion and mental strain,—combined and sustained for some time. Commonly it is a hard-worked doctor, who has quite as much to do ordinarily as is good for him; then comes an anxious case, involving broken rest for several nights, and after that the doctor finds himself with an irritable heart; and only very slowly is this condition recovered from. So Da Costa found among the soldiers in the American civil war; so I find it among civilian patients. Like all neurosal affections of the heart, it only slowly yields to remedies. Beyond the affections outlined here, there are the well-known "smoker's heart" and the "tea-drinker's heart"—conditions of perverted action due to indulgence in these two toxic agents. Some persons cannot smoke at all, others can only smoke a little Turkish tobacco in the evening; while others again merely require to avoid strong tobacco in the early part of the day. If they exceed this, each his own boundary, uncomfortable sensations are experienced, referable to the heart, whose rhythmic action is disturbed. Precisely the same occurs in other persons with tea. These are "toxic derangements" of the heart. Some persons have habitually slow-acting hearts; but this abnormality is scarcely a "derangement."

This summary will enable us to draw some broad distinctions between organic disease and neurosal affections of the heart. In the first place organic change will reveal itself in two ways: (1) by signs discoverable upon physical examination; and (2) by the physiological indications of the effects of effort,—as shortness of breath upon exertion for instance; frequently by a lessened bulk of urine, the outcome of low arterial tension. But in neurosal affections of the heart there are no such evidences; the heart on examination is found normal except there is some perverted action. In the irritable heart, however, the effects of effort are discoverable. In other cases the neurosis has its own peculiar features, which are quite unlike those of disease of the heart—i.e., of organic change. It is not necessary for me to lay stress on the fact that a neurosal condition and organic disease may coexist. It is necessary, however, for me to lay stress on this matter;—there is no evidence, at least that I have been able to find, either from my own observation or the perusal of the works of others, that a neurosal affection of the heart ever develops into organic disease as a process of development. They have no relation to each other. A neurosal affection is a nervous disturbance; an organic disease involves morbid change. Epilepsy may be merely functional, or it may be the outcome of a distinct pathological process. So we may have a "neurosal halt" in a perfectly sound heart, as well as in one undergoing fatty degeneration. Angina pectoris may be found with a heart in full textural integrity; at other times it is found with a fatty heart. The prognostic significance goes with the surroundings of each. When there are coexistent evidences of fatty degeneration, then the neurosal halt is significant, and the paroxysm of angina pectoris may end in death. When the heart walls are sound, neither causes apprehension. It is the associated conditions rather than the neurosis which weigh with us in forming our opinion of the position of the case prognostically.

As to remedial agents, the neurosal affections of the heart once more declare their want of kinship with organic disease. The combination of digitalis and iron—of such priceless value in certain cardiac conditions—is valueless in neurosal affections; often only making matters worse.

There are, then, many and valid reasons for drawing a broad distinction between the nervous derangements of the heart and those maladies which may fairly be spoken of as "heart-disease."

Park-street, W.

THE PHYSIOLOGY OF THE FEET.

BY T. S. ELLIS, M.R.C.S.,
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THE International Health Exhibition will serve one of its most useful objects if it demonstrates not only the evils arising from the use of improper boots, but the form which they should have so as to avoid those evils. Any opinion as to what this should be must depend on the view taken of the functions of the parts they are intended to cover—on the physiology of the feet as well as the shape of their outlines and the anatomy of their structure.

Disregarding the action of those parts not affecting the

feet, the act of walking may, as I think, be thus described. The foot put forward should reach the ground when nearly flat; the toes, the organs of feeling, should be the first to reach it, not the heel, which could not be without some concussion, however slight. The heads of the metatarsal bones and the toes are then pressed firmly against the surface. The great toe, having only two phalanges, is held down in its whole length, the flexor tendon being attached to the final phalanx close to the joint between them. The little toes touch at their tips only; their flexor tendons being also attached to the final phalanx of each, traction on them causes a rising at the joint between the two proximal phalanges as the tips of the toes are drawn backwards. By this arrangement, in the one case a firm solid base is formed from which the body can be propelled onwards, in the other an additional hold on the surface, by a rudimentary action of grasping, is afforded. As the body is moved onwards, the extensors of the great and of the little toes, without lifting them from the ground, where they are held by the flexors, draw the leg forwards, while the anterior tibial in assisting this movement serves another purpose. It is attached to the crown of the arch, and in action tends to prevent any sinking there as the weight of the body comes upon that structure. This purpose is much more effectually served in another way; the muscles of the calf allow the heel with firmness and precision, but withal gently, to touch the ground and the step is completed.

The heel is then raised, but the weight of the body is not borne, as commonly stated, by the muscles acting on the heel and by them only: the deeper muscles, the posterior tibial with the long flexors and the long peroneal, acting round the inner and outer side of the ankle respectively, all of them assist in raising the body and at the same time have a most important influence in maintaining the arch. The tibialis posticus, attached by its expanded tendon to the tarsus on the under surface beyond the astragalus, the bone on which the weight of the body rests, materially assists in supporting the arch from below. The long flexors passing beneath the arch from one abutment to the other are, in relation to it, as bowstrings to a bow, or rather, as the two tendons cross each other, they may better be compared to the tie-rods of a roof.

This arrangement of the two tendons crossing each other is very curious: that going to the great toe is lowest in passing round the ankle, in order to be, as nearly as possible, at the extremity of the arch or bow at that end, as it is at the opposite one; if, however, it passed directly across the sole from end to end there would be little if any free space beneath, but being crossed by the flexor longus digitorum, which comes round the ankle at a higher level, it is so drawn up that a hollow beneath the arch is formed; the flexor accessorius, by drawing back the tendon of the flexor longus pollicis, compels it to cross the other nearer to the heel, and so increases this effect. Thus the flexor longus pollicis, regarded as the chord of the arc, becomes itself an arc.

The tendency to inversion which all these muscles, acting from the inner side of the ankle, might occasion is corrected by the long peroneal on the outer side; it also, acting on the base of the first metatarsal bone, a point considerably beyond the centre of gravity, has a bracing action on the arch, as the weight of the body falls upon it. In this, too, no doubt the small muscles of the sole assist those of the calf, but I cannot accept the converse statement that it is the "muscles of the sole assisted by the tibial muscles" which "are the active agents." The deep muscles of the calf have much the more potent influence. Thus it is that by the action of muscles the whole of the strain which the weight of the body in walking would otherwise throw on the ligaments binding the arch together is removed, and any tendency to flattening of it prevented.

This, which has been called my "bowstring theory," is the view I put forward in a little monograph, "On the Arch of the Foot," written and printed in 1877. For reasons therein given I could not accept the view that the arch is maintained by ligaments, or believe in the carriage-spring movement of those ligaments, yielding to the weight of the body, as the explanation of a springy gait. It is really due to the heel being gently lowered and firmly raised. Upon this the grace of walking depends. On the same grounds I hold that in proper walking the foot does not lengthen. Camper, whose treatise is regarded as classical, but which, as I think, contains many important errors of fact and of induction, said that his knowledge of anatomy taught him that it did do so. On the contrary, I believe that as the tightening of a bowstring approximates the ends of the bow, so the bowstring action of the flexor muscles on the arch of the foot tends to shorten it. If walking were a succession of standings, flat-footed alternately on either foot, no doubt there would be lengthening, as the ligaments of the arch yielded. Such a mode of progression is, we know, possible; and, indeed, we sometimes see something like it, hardly, however, to be called walking. I would ask those who believe that the foot in walking lengthens "one-tenth of its length, or about an inch" (a statement on high authority made during the past year) to consider this. What, then, would be the condition of the sole after a long walk, from friction caused by the necessary sliding with the weight of a man borne upon it? As in every mile of the ordinary march of soldiers more than a thousand steps are taken on each foot, the result would not be pleasant even to imagine.

The position of the foot is important. To turn out the toes seems to me to be not only untrue to nature, but objectionable as well as inelegant. Camper regarded it as incontestibly the proper position. For the following reasons I believe that the toes should be directed forwards, the inner margins of the feet parallel. It is desirable that the propulsion of the body onwards from, and consequent thrust backwards on, the foot, and especially on the great toe, should be in the direction of its length rather than obliquely across it, not only as giving a firmer bearing from which to propel the body onwards, but as diminishing the friction on the sole and consequent tendency to foot-sore. This applies also to the smaller toes in a less degree. The long axes of all the toes continued backwards seem to converge on the heel. By standing with the bare foot and springing forward it can readily be seen how much more tendency there is to slide on the sole when the foot is turned out than when it is directed forwards. In the latter position, too, the arch is much more firmly braced up—a fact recognised by surgeons who advise, in cases of flat-foot, that the toes should be directed inwards rather than outwards.[1] In standing, the everted position is not more stable. When a body stands on four points I know of no reason why it should stand more firmly if those points be unequally disposed. The tendency to fall forwards would seem to be even increased by widening the distance between the points in front, and it is in this direction that falls most commonly occur.

Those who look on the human foot as fully partaking of the beauty of which artists in every age have regarded the human body to be the highest expression, ought not readily to admit that the boot which best conforms to its outline, reveals its features and expresses its leading characteristics, will require an apology for want of elegance. I, at any rate, cannot admit anything of the kind. The human foot is, moreover, an object of far more than the ordinary interest belonging to every part of the human structure. In the monograph already mentioned I ventured to suggest that, anatomically, there is no more marked distinction between man and the lower animals than is to be found in the special development of the foot.

However much we may regard it as in itself calling for admiration on account of its fitness for the purposes it has to fulfil and for others it may on occasion serve, the human foot is far more remarkable as an adaptation of the mammalian type, modified to suit a purpose kindred to but differing from that which the corresponding member supplies in other animals. The heel has its special form and significance in that man only has one adapted for crushing an offensive object beneath it. The large size and important function of the great toe is also a specially human feature. In the mammalian typical limbs the bones of the hand and foot (or rather, to avoid confusion, in four-handed or four footed animals, manus and pes) are arranged on a uniform plan: to each five digits, the first having two phalanges and the others three. The first digit is generally attenuated, often suppressed, but whenever it exists it has two phalanges only.

This curious difference is nowhere, so far as I know, explained. I cannot discover that any animal (below man), recent or fossil, exists or has existed from the times of the Trias formations till now in which this arrangement has appeared to be essential. It may be of some advantage in the quadrumana, and doubtless the human hand is thus better fitted for its functions, but it seems to me to be much more difficult to imagine it possible for any other arrangement to exist in the foot unless the whole scheme of it, so to speak, were changed. It is essential that the only

[1] The bearing of these views on the treatment of flat-foot is discussed in a brief communication to THE LANCET of February 9th.

joint in the great toe should be drawn to the ground by the strong flexor tendon attached to the final phalanx close to it; if another joint existed it must rise up, as occurs in the other toes, and the solid bearing would be lost. Apart from this, it must be admitted that it is mainly due to the special development of the great-toe in a line with the long axis of the foot that man is enabled to exercise the attribute, in all ages regarded as a noble one, of standing erect. Yet this special feature is the one which the conventional boot does most to conceal, and in direct proportion as it is successfully concealed the wearer is supposed to be dressed in good taste. It would seem to be regarded as necessary to reduce the foot to even-sided symmetry; but there is no law of beauty which requires this. Mr. Ruskin assuredly would not say that it is in any of "the eternal canons of loveliness" decreed that an object to be beautiful must be symmetrical. An architect required to provide more space on one than on the other side of a building would not seek to conceal or even to minimise the difference; he would seek rather to accentuate it, and give the two sides of the structure distinctive features. To me it appears that it is on this principle only that a boot, to be at once useful, graceful, and appropriate, can be designed.

Moreover, the sense of symmetry, natural and reasonable where the same function has to be performed, is, or ought to be, satisfied by the exact correspondence of the two feet, which, taken jointly, may be described as the two halves of an unequally expanded dome, irregularly extended at the base, the greatest extension being in the line of the greatest expansion of the dome, through which line the division runs. The dividing line thus makes the margin of the two feet parallel to each other. It may be that the inner margin of the great toe, if produced backwards, would fall a little distance from the inner side of the heel. A perfect adult foot, in which the great toe is not and never has been diverted outwards, and in which there has been no consequent thickening of the large joint, is not easy to find. In children the inner line is often visibly concave. It may be remarked that in rest the great toe is everted as well as drawn upwards, in which position the toes are usually packed in a tight, medium-pointed boot; it is only therefore in action as the toes are pressed against the ground that the full extent of the approximation to a straight inner line is seen.

In the boot it is of first importance that the sole (technically, the part in front of the hollow or "waist") should allow the great toe to occupy its natural position; it must, therefore, be straight or nearly so on the inner margin; but it is of little use to provide the room thus given unless it be occupied: the foot must be invited to occupy it by giving plenty of room in the upper leather on this side. It is obvious that where a flexible material is fixed on both sides and left loose between, it can be drawn furthest from the surface to which it is attached, in a line mid-way between the fixed parts. For this reason the highest part of the foot, which is on the inner side, will, in any case, have some tendency to go to the middle line of the boot where most room can be made; this tendency is largely and needlessly aggravated by the high ridge of the last being along the middle line instead of being on the inner margin. But not only ought the room there given to be much more according as the foot projects the more upwards; it ought to be proportionally more. I have insisted that the foot does not lengthen in walking, but rather shortens. This shortening, due to the powerful action of the long flexors, causes the foot to rise across the middle, the rising being almost entirely on the inner side. Here, therefore, over (not by the side of) the ball of the great toe is special room required. The lateral thrust, too, already spoken of as consequent on turning out the toes, tends much to displace the foot and to throw it against the outside of the boot. Toe-caps also are objectionable, as giving the most room in the middle line and inviting the great toe to occupy that position.

No useful or ornamental purpose is served by leaving space unoccupied round the outer margin of the sole opposite the little toes, as if it were necessary to make the two sides of the boot to match. No angle existing in nature, none should be represented; the outline of the sole of the boot should conform to that of the foot.

If it be true, as already stated, that grace in walking, as well as free propulsion of the body onwards, and maintenance of the arch in walking, are all due to the free action of the flexor muscles, letting the heel down with gentleness and precision, and raising it with firmness and vigour, it follows that none of these can be if the boot prevent the heel from going down, a necessary antecedent to springing up. A low heel, therefore, if any, is imperative. The perfect boot should have none. Nor can the free action of the flexor muscles have full effect, so as to draw the toes to the ground, if the sole be turned up at the toes, especially if it be a stiff one. Some turning up will come from walking, however good, but there is no reason why it should be aggravated by having the boot-last so. In it the sole should be flat to the end.

Objection is made that boots with a straight, or nearly straight, inside line give the feet a pigeon-toed or inverted appearance, which is unnatural. This is not altogether due to the eye being accustomed to a more conventional pattern. It is, I am sure, mainly due to a removable cause. Any conspicuous line, that of the laces or a seam, is always carried from the front of the leg to a central point on the upper surface of the foot. The eye, falling on this line, in imagination continues or produces it, and so divides the front part diagonally into two very unequal portions, the larger on the inner side. I have found that if the line of the laces or seam be kept parallel throughout to the line of the long extensor tendon—in other words, along the crest of the ridge, thus marking out a distinctive feature,—the unpleasant effect is removed.

In proper walking, which cannot be done in an improper boot, friction of the foot on the sole and of the latter on the ground is reduced to a minimum, the sole being pressed against, not rubbed along, the surface. This is shown by the very little wearing of the leather; when at last it does give way, it should be at an oval spot a little distance from the margin of the sole, under the middle joint of the great toe. This is the last point to leave the ground in walking; here, therefore, is the greatest tendency to slide on the surface and consequent friction.

The great toe, in any but the most perfect feet now to be found, is so easily diverted outwards that socks and stockings with a straight inner line are very desirable, indeed, no others can be said to really fit the feet. When any considerable distortion exists, a separate stall for the great toe is necessary.

For the reasons given, a last should have the inner margin nearly in a line with the inner side of the heel, and joining in front by a rounded angle a long curve on the outer margin, where no angle should be shown. The sole should be flat, touching the base line in front. The thickest part (highest vertically) should throughout be on the inner margin, especially above the ball of the great toe. The boots should have low heels—to be perfect none. The line of laces or of any conspicuous seam down the front should be in a line corresponding with the inner margin of the foot along the highest part. The boot should if possible be left on the last for a considerable time, to overcome the tendency of the leather to recoil after the forcible stretching to which it has been subjected, and so to fix it in its proper shape.

Some boots, and the lasts on which they were made, are shown in the Health Exhibition which will serve to illustrate the latter part of this paper. They are exhibited by the maker, Mr. Henry Bletchly, of this city, who has taken very great pains to understand my wishes, and to use his own thorough knowledge of the technical operations involved as a means of overcoming difficulties in carrying them out. I have every reason to be satisfied with the result. His case (No. 260, Class 13) I would commend to the attention of those interested.

Gloucester.

SCIATICA AND ITS ALLIES, AND THEIR TREATMENT BY THE BATH THERMAL WATERS.[1]

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SCIATICA is the generic name given to a dysæsthetic condition of the nervous apparatus of the lower limbs. The term is not meant to declare, by a process of exclusion, that only one nerve is affected, or that only one nerve mediates all the pain. Rather, it must be taken to connote the pain which is diffused over a certain nerve territory: now here, now there; sometimes condensed, so to speak, within a

[1] Read before the Bath and Bristol Branch of the British Medical Association, April 17th, 1884.

small segment of nerve tubules; at other times spreading widely through the obvious relationships of contiguity and sympathy. Sciatica is a complex piece of pathology, because the sciatic nerve is complex in its anatomy and physiology. It is not a single nerve going straight from a nerve centre, and breaking up as it goes into motor and sensory branches; such "sweet simplicity" is not often nature's way, however much it might help our work as medical men. We have to deal with a great nerve, which is compound in its origin, which contains separate bundles of tubules having different functions, and which ultimately ramifies throughout the posterior, inferior, and outer parts of the lower extremity. When we add to this the inosculations with other nerves, and the anatomical relations of the sciatic trunk with the principal muscles, we have sufficient reasons why the medical problem before us often requires mature experience and special analytic skill.

Now, let us study briefly the origin and course of the sciatic nerve and its main subdivisions. It is formed principally by the fifth lumbar and first three sacral nerves; these combine into what is called a plexus, and from this issue two nerves of very different size and distribution, the great and small sciatic. Contributing to the plexus from above is the lumbo-sacral cord from the fourth lumbar nerve, and inferiorly it is joined by a communication from the fourth sacral, which goes to form the pudic nerve. For some distance the great sciatic nerve runs down the back of the thigh, with only a few muscular branches springing from it; but opposite the knee-joint it breaks up into its two large final divisions—(*a*) the internal popliteal, which goes to the inner and posterior parts of the leg and supplies most of the foot; and (*b*) the external popliteal or peroneal, which is distributed to the outer side of the leg and to the dorsal surface of the foot and toes.

It is clear from this sketch that the sciatic nerve stands out in strong individuality—a magazine of nerve-force, so to speak, which is almost ganglionic in its sensorial acuteness and motorial energies. There is no analogue to it in the upper limbs; here the big nerves split up into smaller threads, as if the delicate endowments of the forearm and hand ask for more specialised nerve conductors; and the physiological key of the matter seems to lie in the massive function of the lower limbs—their office in supporting the body and in performing locomotive acts. Again, the comparatively superficial course of such a large nerve is very noteworthy, and exposes a certain section of it to bending and outward pressure, to say nothing of traumatic accidents. Then, further, the track of the nerve makes it liable to be dragged and squeezed by the action of the large muscles of the thigh, some of those very muscles which derive their motor supply from the nerve itself. These salient points in the anatomical mechanism of the sciatic nerve must modify its physiological properties and its pathological phenomena. We should expect pain to be a frequent symptom, weakness to be scarcely less common, and trophic changes to be by no means rare. Clinical experience teaches us that these morbid conditions exist in ever-varying degrees. In the vast majority of cases sciatica must be taken to signify pain *or* weakness, sometimes pain *with* weakness; one generally precedes the other, and one generally dominates over the other; but both are more or less felt together as time goes on. It seems to be a law in physiological pathology that whenever a compound nerve going to the surface is smitten with disease, the effects of that disease are seen in the disturbance of both its main functions; and this point is one on which I desire now to lay special emphasis. According to the commonly received doctrine, sciatica is a name which denotes a special neuralgia; but in reality it denotes a great deal more; and unless we grasp the fact that sciatica means a lesion of motion as much as a lesion of sensation, we shall understand only half the truth, and our therapeutics will be correspondingly lame and unsatisfactory.

This review of what may be called the primary elements of a very common malady will lead us to sympathise with the difficulties in making an early and positive diagnosis. Mr. Jonathan Hutchinson and Dr. Buzzard have undertaken to guide us among the obscurities which surround this important question. The former writer boldly declares that in nineteen cases out of twenty in which the diagnosis of sciatica is suggested there is no affection of the sciatic nerve whatever. They are, according to him, simply cases of arthritic disease of the hip in one or other of its various forms—acute and chronic gout, rheumatoid (or osteo-) arthritis, subacute rheumatism, or chronic senile rheumatism. Of cases of so-called sciatica, which are not hip-joint rheumatism, some are probably affections of the fascia or periosteum near the hip.[2] Dr. Buzzard directs attention to the sources of fallacy in the surrounding muscles, and maintains that sciatica may be simulated by (*a*) myalgia from over-exertion of the flexor muscles at the back of the thigh; (*b*) muscular rheumatism in the same muscles, or in those of the leg, from exposure to cold; and (*c*) a low inflammatory state of the loose bursal tissue which lies between the muscles, and permits one to slide upon the other.[3] I think we can hardly wonder that some of the old writers, in a state of puzzled despair, labeled every case of pain about the hip as *hip-ache*, whenever they could not at once fix its position and identify its cause. In truth, the diagnosis of sciatica is surrounded by pitfalls, some of them deep or so treacherous as to need particular care not to slide in, for when once in we may find it difficult to get out again. I do believe that it is almost safer first to consider every case of so-called sciatica as possibly not sciatica at all; certainly much safer than to accept a ready-made diagnosis, and to act upon it without independent observation and inquiry. If our pathological thoughts are so narrow in their range that we rush at once to the idea of sciatica as the most likely solution of any obscure neuralgia of the hip and thigh, we may be right now and then, but much more often we shall be on the wrong track altogether.

A short paper like this cannot be an exhaustive clinical treatise, and here I only try to put up a few sign-posts wherever the way is likely to be missed. Take a patient in any rank of life who has undoubted sciatica, and ask him to point to the exact seat and course of the pain, and the hand usually wanders vaguely over a large surface-area, back and front of the limb, upwards and downwards, pausing here and there along the line of longitude which reaches from the lumbar spine to the extremities of the toes. In only a few cases will the patient point unmistakably to the track of the great sciatic nerve, and say that there, and there only, is the pain. Generally the limb is more or less girdled with pain, reflected down the back of the thigh by the cutaneous twigs of the small sciatic, and along the communicating branches of the obturator and the anterior crural; nor is it uncommon for neuralgic twinges to dart along the pudic nerve to the perineum and the scrotum, and to be felt somewhat severely in the knee-joint itself from the tiny branches which go to it from the external popliteal nerve. There is, moreover, usually a lumbar and sacral complication which is apt to be puzzling, arising out of the cutaneous distribution of the lumbar and sacral nerves, and making it almost a proverb that sciatica begins with lumbago, or is associated with it. A unilateral lumbago is very suggestive of sciatica, present or coming. Sometimes a sufferer complains most of the pain in the hip-joint, and lays his hand transversely in the groin to tell us where he feels the greatest stress of his malady. Not uncommonly there is much uneasiness among the gluteal muscles, increased by walking, or indeed by any movement; no pain at all along the largest part of the sciatic nerve behind the thigh; but a great deal of tenderness all round the leg, with numbness or tingling in the toes. Now and then there are thermic disturbances in the limb, and surface spots of cold seem to alternate with flushes of heat. Dr. Anstie pointed out long ago that anæsthesia is a common complication of sciatica; showing itself as partial numbness of skin previous to the first outbreak of the neuralgia, and then during the intervals between the attacks. Gradually the anæsthesia is exchanged for a generally diffused hyperæsthesia around the foci of pain; but stress was laid by Anstie on the fact that tactile sensibility is always diminished.[4]

I will now say a few words on those foci of pain which are characteristic of the more important forms of neuralgia, and which are associated with the name of Valleix, who first described them. In sciatica their interest is great because they unquestionably help to establish a secure diagnosis. Valleix describes seven spots which are permanently and intensely tender, and the slightest pressure on which is sufficient to renew the agony of acute pain: (*a*) a line of points reaching from the lower end of the sacrum up to the crista ilii; (*b*) a point opposite the emergence of the great and small sciatic nerves from the pelvis; (*c*) a point opposite the

[2] Med. Times and Gaz., Jan. 28th, 1882. [3] Practitioner, Feb. 1877.
[4] Reynolds's System of Medicine, vol. ii., p. 754.

cutaneous emergence of the ascending branches from the small sciatic which run up towards the crista ilii; (*d*) several points at the posterior aspect of the thigh; (*e*) a fibular point, at the head of the fibula, corresponding to the division of the external popliteal; (*f*) an external malleolar, behind the outer ankle; (*g*) an internal malleolar, by the side of the internal ankle. Conceding, as I am obliged to do, that Valleix' doctrines have a tinge of fancy about them, and that it is practically impossible always, or even frequently, to verify all his "tender points," yet the examination of a large number of sciatic patients in the Mineral Water Hospital enables me to speak of the "fibular point" as a tolerable certainty, and easily to be found if inquired for. In two hospital cases there was no pain in the main trunk of the sciatic nerve; but it began to be felt exactly over the head of the fibula, and extended as a "burning sensation" down the lower part of the leg and over nearly the whole of the foot. In another case the neuralgia of hip and thigh skipped the leg altogether, and made known its existence further on by two exquisitely tender ankles. But it is impossible to delineate here all the aberrant forms of this great neuralgia, which may vary almost from day to day according to the circumstances of weather, clothing, tone of health, and a hundred trivial causes.[5]

And now look for a moment at the motorial symptoms. First, observe how a sufferer may spare the muscles of the affected side because their exercise brings on pain. Secondly, pain and quasi-paralysis are almost always present at the same time, though it may be difficult to distinguish the proportions in which they exist in any given instance. Thirdly, the necessary treatment of any individual case, such as prolonged rest and the like, must produce some atrophy of the muscles and weak and awkward movements afterwards. Now these weak and awkward movements in actual execution are often hard to interpret, and sometimes even a riddle to unfold. Note whether the foot be inverted or everted, and whether it strikes the ground with an elastic tread or with a sudden "flop" (a test of the tonicity of the muscles on the front of the leg). Examine the flexor and extensor capabilities of the joints; the presence of hip disease will be determined by the excellent methods of Dr. Macnaughton Jones and Mr. Howard Marsh; do not forget locomotor ataxy and its legion of nerve troubles. Search for enlarged glands, ask about old hernia, blows and falls years ago, and, in the case of a woman, inquire whether sciatica or anything like it ever preceded or followed child-bearing.

The rough anatomy of the matter being thus provisionally settled, the medical etiology of the disease must next engage our attention. Gout, rheumatism, and syphilis may affect the neurilemma, the neighbouring fascia and periosteum, and especially the hip-joint itself. Within the range of ordinary probabilities, gradual osteo-arthritis of the hip and the slow rheumatic arthritis of the aged stand first in order, and gentle rotation of the joint should never be neglected. The poison of malaria should be thought of in obscure cases, and sometimes pure anæmia has more to do with the disease than probably anything else (as in a young man entrusted to my care last winter by Dr. Richards of Winchester). Nephralgia and a possible calculus must be borne in mind. But whenever the health is obviously failing, and a bilateral pain is prolonged through the lower limbs with increasing intensity and almost ceaseless poignancy, a more definite cause must be sought than a local neuritis or a constitutional dyscrasia. It is here that the most serious mistakes are apt to be made. The functions of the pelvic viscera ought to be thoroughly explored; we should be satisfied that there is no backward displacement of the uterus, weighed down, perhaps, by heavy fibroid tumours; and the rectum must be examined for fæcal accumulation and the possibility of pelvic cancer. Malignant growth from the inner pelvic walls is the undoubted cause of the most agonising sciatic pain, and may be hardly suspected until a tumour is felt through the anterior and lower abdominal wall. Once more: bilateral sciatica (felt most in the thighs), not explicable by any other medico-chirurgical cause, should suggest meningitis or myelitis of the lower part of the spinal cord, as the result of chronic disease or old injury. An almost forgotten concussion of the spine from a fall may set up a long while afterwards a sciatica of an obstinate and practically incurable kind.[6]

The therapeutics of sciatica cover a wide field. It is not my intention here to travel over ground that is familiar to us all, and to reiterate the stale story of the uncertainty of our prescriptions. We must be masters of many drugs and many methods if we are to be conquerors in that great battle with disorder and disease in which there is often more empiricism than science; but it is better to succeed as empirics than to fail as scientific men! Our quest is for some special remedy which may have the same control over sciatica as quinine has over supra-orbital pain; and failing this, we must take hold of all the rational indications for treatment that we can find. I will suppose now that in a seemingly uncomplicated case of sciatica, caused by a molecular or dynamic disturbance in the nerves themselves, we have given iodide of potassium and quinine in full doses; that we have thoroughly unloaded the bowels by croton oil and colocynth, with perhaps occasional enemata; that turpentine has had its chance in large quantities and small;[7] that all the most approved narcotics have been administered by the mouth and under the skin (including hypodermic sulphuric ether and hypodermic hot water);[8] that every external application has been used which is likely to do good, including dry-cupping and a Spanish-fly blister; that acupuncture has been tried, and hints have been dropped to the weary and disgusted patient that the surgeon's knife may yet have to be employed in order to carry out "nerve-stretching"—and still the cry is that there is little relief and no prospect of a cure. To prevent recourse to surgical operation, I recommend a consideration of three points, each at its proper season. First, never allow the acute and early stages of sciatica to come and go without a resolute effort to grapple with them. Order complete rest and a posture on the sound side; a strictly milk and vegetable diet; and, whatever else may be done outside and inside, give every three or four hours, for some days, twenty grains of salicylate of soda with a little iodide of potassium and bicarbonate of potash, abundantly diluted with water. Secondly, at the right time remember galvanic electricity, and apply it in the way described by Dr. Wilks in his lectures on Diseases of the Nervous System. Let the current run down the painful limb without moving the rheophores. Place the positive pole over the spine or the hip and the negative pole on the foot, and then let the current run for fifteen minutes or longer. Thirdly, there is the grand resource of bathing in hot water, of which the natural thermal springs of Bath furnish an unlimited supply, with the collateral advantages of comfortable and luxurious baths. We could wish that this resource were not so often long deferred, and that it was recommended with more confidence in all cases in which there is no suspicion of organic mischief elsewhere. For, however deep may be our scepticism about the efficacy of natural mineral waters, there are the obstinate therapeutic facts of our Bath Water Hospital, and the unbiased private experience of every practitioner in our city. It is useless to speculate beyond our knowledge, and our duty at present is to record what we know to be the plain truth about the efficacy of our thermal waters in certain diseases or disorders which have baffled well-devised schemes of drugs and diet. It is certain, however, that bulk, and the alkaline quality of the water have much to do with its therapeutic virtue; electric currents may be developed by the rapid passage of nitrogen gas; and while the body is immersed the douche should play on the painful limb, which ought to be stroked and kneaded with a brush or glove. Other manipulations may be done by professional shampooers in the intervals of bathing; but everything of this sort must be carried out with gentle dexterity. The "hip aches" of old days were mostly treated with violent scourgings from the hot water pump, the strokes being counted by the thousand.

A large proportion of young and middle-aged people who

[5] It is curious to notice how the so-called sciatica, which is a sign of extreme fatigue (from too much walking or standing), is developed in a marked way at one or more of the "tender points," the external fibular being by far the most common.

[6] In 1880 Dr. W. Miller Ord recommended to my care a gentleman of middle age, in whose case a chronic sciatica on both sides suggested spinal mischief, and a caution on this point was very properly suggested. Very lately a married woman, in the middle rank of life, was sent to me by Dr. Corbet Fletcher of Camden-road, London, in whom it seemed nearly certain that a violent blow on the lower spine, inflicted some years ago, had set up a degenerative myelitis, with the sequel of a torturing sciatica, mainly on the right side.

[7] See a paper by Dr. W. Allan Jamieson, in the Edin. Med. Journal, March, 1877.

[8] Mr. Meroes, resident medical officer at the Mineral Water Hospital, has tried the subcutaneous injection of a 1 per cent solution of osmic acid in six cases of sciatica with decided but very temporary relief.

suffer from sciatica are cured by bathing, and recover a good measure of health; but there is a not unimportant residue in whom this neuralgia (like any other) is a sign of premature bodily decay, and refuses to yield to anything. Almost always we should press the administration of iron and cod-liver oil, and those fatty foods which promote the integrity of nerve-tissue and of general bodily vigour. Clothing is a matter of personal hygiene which must not be neglected; chamois leather drawers should be worn during the winter and drawers of merino during the three warmest months. If the pain be severe in the leg, and there be signs of vaso-motor disturbance, such as erysipelas and œdema, I advise a bandage to be worn during the daytime. The even pressure of a bandage controls muscular spasms, and helps a weak circulation. The allies and counterfeits of sciatica, as lumbago and rheumatic myalgia in any part of the lower limb, are generally much alleviated by the proper and persevering use of the Bath thermal waters.

A NEW SPONGE.

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IN recently addressing the Society of Surgery in Paris on the uses of the new sponge, I made some observations, for n abstract of which I claim the privilege of publicity in the columns of THE LANCET, in continuation of the first published notice on the subject.[1]

Conceding that ordinary sponges may, by extraordinary precautions in boiling and antiseptic cleansing, be so used as to prevent infection, the fact remains that they are such a fertile source of mischief, as to be no longer employed by many of the most skilled and conscientious operators. Whereas even the best new natural sponges require much preparation before use, and only absorb after being moistened, the sponges made according to my plan by Messrs. Burroughs and Wellcome are always ready, and absolutely pure. The antiseptic, preserved intact within the capsule, is set free by a light squeeze just when required, and it then diffuses itself instantly throughout the sponge tissue. How quickly and powerfully this absorbs may be demonstrated by a very simple experiment. On a tumbler, brimful of water, lightly hold one of the sponges just in contact with the liquid; as this perceptibly falls in the vessel, gradually press the sponge down into it. By a little care, it is easy to fill the tumbler with the sponge, without spilling a drop of water. The sponge absorbs from sixteen to eighteen times its own weight of liquid. If the sponge capsule have been cracked before the sponge is immersed, the liquid emits the odour of the antiseptic employed; and I have now before me a tumbler containing one of the sponges and water in which it was immersed three weeks ago. The odour of the eucalyptus oil, which filled the capsule, is still most distinctly perceptible. As any antiseptic may be enclosed in the capsule, sponges may be used to make their own antiseptic and cleansing lotion, according to the indications of the case and the surgeon's views. For additional guarantee of absolute asepticity, the sponge materials may be prepared with borax, salicylic acid, or bichloride of mercury, and the sponges may be sterilised by high temperature, and enclosure in sealed vessels. In nursing patients affected with infectious disease, it appears reasonable to expect that the great sanitary principle of isolation may be promoted by burning the sponges, after using them for collecting discharges and cleansing the person. In child-bed, large sponge pads containing two or more antiseptic capsules appear well calculated to ensure comfort and safety; but as this is a department of practice in which I have no personal experience, the hint is only tentatively offered.

I have already acknowledged my indebtedness to Sir Spencer Wells; and his anticipations are borne out by Dr. Robert Barnes and Dr. Thomas Savage. The latter has favoured me with a note suggesting that the sponges may be useful for (*a*) plugging the vagina in some cases of hæmorrhage—e.g., threatened abortion; (*b*) retaining laminaria tents *in situ* in the uterus; and (*c*) in some cases of uterine deviation, as a tampon.

My friend and colleague, Mr. Priestley Smith, thinks that these sponges may be of special value in ophthalmic practice, a suggestion entirely in accord with my own experience of the comfort and safety attending their use in operative surgery generally.

In principle, the new sponge and wound pad, with its antiseptic nucleus in absorbent materials, is as elastic and adaptable, as are the physical properties of its constituents. In the endeavour to discover a *via media* between theoretically conflicting systems, it is to be hoped that a practicable compromise has been effected between the antiseptic and dry methods of wound treatment,—that improved means have been devised for surface drainage and physiological pressure,—and that, by technical simplification, the practice of scientific methods in every day surgery, and in the sick room generally, has been made easier and safer.

Birmingham.

[1] THE LANCET, May 3rd, 1884.

A CASE OF RUPTURE OF THE UTERUS.[1]

BY J. MACKENZIE BOOTH, M.B., C.M.,
PHYSICIAN TO THE ABERDEEN GENERAL DISPENSARY.

ON account of its infrequency as well as from the special difficulties encountered in the management of the following case of rupture of the uterus, I think it worthy of record.

On the morning of the 15th of January last I was sent for by one of the students working in my district to assist him in a dispensary confinement in East North-street. The patient was a woman of middle stature but of huge bulk, weighing (the neighbours said, and it appeared likely enough) about eighteen stone, and was now being confined for the third time. The first confinement had been normal, the second severe and protracted. The patient had expected to be ill some time ago, and had not felt any movement for several days. Mr. Hutcheon, the gentleman in charge, told me he had been with the woman for four hours, that the labour pains, which at first had been long and strong, had ceased, and that as there seemed to be no progress in the labour he had sent for me. I found the os well open and the vertex presenting normally, but the head very high up above the pelvic brim. Stimulation of the os only excited very feeble uterine contactions. I ordered a teaspoonful of liquid extract of ergot, and a smaller dose in half an hour's time was to be given if I did not return. I left, and having finished part of my work, returned in less than an hour, this time taking a pair of forceps with me. Matters were still *in statu quo*, and neither was the administration of ergot nor stimulation of the fundus or os of any avail in inducing uterine action. The patient complained of sharp but not excessive pain over the lower part of the abdomen, and was evidently much exhausted. I then attempted to apply the forceps, but owing to the height of the presentation utterly failed to do so. I repeatedly withdrew and reintroduced the blades, trying to get them applied, but finding it of no avail I determined to turn and deliver by the breech. This was not so easily done, as from the thickness of the abdominal wall manipulation was well nigh impossible, and even when the hand was passed up into the uterine cavity the legs were so far up that it was difficult to get hold of a foot or knee. After some delay I hooked the left knee with my forefinger, and brought it down into the vagina; and when the foot was pulled externally to the labia, I found the skin coming off in my hand, and the tissues soft and flabby, the child having evidently been dead for some time. On this account less force was used in attempting extraction than would otherwise have been done. By degrees and with difficultly, from the resistance of the soft parts and the absence of uterine contraction, the other leg, trunk, and arms were brought down, and then I cculd feel that the spinal column had given way near the sixth cervical vertebra, the skin being intact and the neck greatly elongated. This, of course, rendered the utmost care necessary in making traction in order to deliver the head; and it was soon obvious that it would be impossible, in the absence of uterine contraction, to bring down the head without risking the continuity of the neck. The forceps were accordingly again had recourse to, but so high was the head that I repeatedly failed to get them applied. In this dilemma I sent for our late senior colleague, Dr. Hall, who happened to be engaged at the time, but promised to come shortly to my assistance. Thinking it would give more space for using the forceps, I cut across the trunk of the child from the right shoulder to

[1] Read before the Aberdeen Medico-Chirurgical Society on March 6th.

the left axilla, leaving the left upper extremity attached to the head and neck.

When Dr. Hall arrived, we again attempted to apply the forceps, but our efforts were unavailing. A blunt hook was with some difficulty introduced into the mouth, but even with moderate traction the lower jaw came away without producing any improvement in the position of the head. The introduction of the hook into the right orbit was attended with no better result, the bones and soft tissues of the face affording very little resistance. About this time, the soft tissues of the neck which alone united the left arm with the head, gave way, and the head remained in utero, with the cervical spine projecting into the pelvic cavity. The spinal stump was then secured with a craniotomy forceps, and we endeavoured to apply a cephalotribe to the head, with the object of crushing it. In this we also failed, the fixation of the head being insufficient. Dr. Hall then suggested that we should send for Professor Stephenson, who very kindly, though it was during his class hour, came to our assistance. Dr. Stephenson, after some manipulation, managed to get a tape noose adjusted over the stump of the cervical spine, and with this fixation, after the patient had been chloroformed, he attempted to perforate. This he repeated several times, but the head constantly slipped away from the finger and perforator. The crotchet and cephalotribe were also tried, but without success, and then Dr. Stephenson discovered that the head had passed through a rent in the posterior wall, and had escaped into the abdominal cavity, and one of the students who was supporting the abdomen, affirmed that he could feel the head over the umbilicus. Seeing that such was the condition, and that the patient was in a state bordering on collapse, it was deemed unadvisable to make further efforts at extraction. I stayed some time after this with the patient, who was at times drowsy and unconscious, and at others moaned and complained of abdominal pain. An opiate was given which relieved the pain; then she asked for water. Leaving one of the students in attendance, after ten hours' work, I went away to get some food, and see my more urgent cases. Returning about midnight, I found the patient evidently sinking, the pulse and respiration being scarcely perceptible. Still she sometimes became conscious, and asked for water, and lingered on till after six o'clock, when she expired.

Eight hours after death, with considerable difficulty leave was obtained to make a post-mortem examination in the presence of a female friend of the deceased, whose breath and manner plainly proclaimed that her courage was derived from other than natural sources. Post-mortem lividity was already apparent on the cheeks and back of the neck, and a quantity of gluey froth exuded from the nostrils. The whole body was heavily loaded with fat and the abdomen was enormously tumefied. On making the incision from the ensiform cartilage to the pubes, the abdominal wall was seen to have a thickness of subcutaneous fat varying from two to six inches, the latter at the mons veneris. The abdominal muscles seemed healthy and well nourished. Puncture of the peritoneum allowed of the escape of a large quantity of fetid gas. Lying close to the umbilicus to the left of the ascending colon, and partially encircled by the placenta, was the fœtal head, and below the placenta a healthy and well-contracted uterus. On the posterior aspect of the uterus and at its left side was a rent of from four to five inches, extending from within a quarter of an inch of the os partially into the body of the uterus, but mainly in the cervix, which was much thinned and distended, especially on its posterior aspect. The uterus was dissected out as well as possible and taken away for more careful examination. The peritoneum appeared normal and contained less than half a pint of blood-stained serum. Microscopical examination of the muscular fibre near the site of rupture showed no degenerative change.

As rupture of the uterus is a very rare condition, and one which has interested me not a little since the occurrence of the above-mentioned case, I have looked through some of the more recent literature on the subject, and shall refer more especially to two of the contributions. A most instructive account of it is given by Dr. Bandl of Vienna in No. 23 of the *Centralblatt* for 1875. He there gives details of thirty-two cases of rupture of the uterus occurring during labour, no less than thirteen of which had come under his own observation; while the remaining nineteen occurred in the General Hospital of Vienna. In none was there pathological change in the uterine tissue; in all the rupture was in the cervix, though sometimes extending into the uterus; and in all the cervix was much thinned. In nineteen this was due to narrowing of the pelvis, in three to hydrocephalus of the child, in eight to shoulder presentation, and in one no cause was noted. "Pressure," he said, "did not produce rupture but sloughing, which is not very uncommon; and in one case where sloughing and rupture co-existed, the rupture was at another part of the cervix." His views, which were entirely in accordance with those of Braun, Spaeth, and Chiari, were as follows. That rupture occurring during labour is due to disproportion between the uterus and cervix uteri. Normally the cervix is drawn over the head by the muscular uterus, the internal os remaining at the level of the pelvic brim. With disproportion the cervix is abnormally stretched and thinned, the internal os being raised above the pelvic brim, and so rupture becoming possible by the powerful contraction of the uterus above. Dr. Bandl further asserted that threatened rupture could be diagnosed by the gradual ascent of the internal os and the stretching of the cervix, the fundus acquiring a lateral position, and that probably the condition of the cervix was often modified by previous difficult labours.

In a more recent paper on Rupture of the Uterus, contributed by Dr. Ames of Philadelphia to the *American Journal of Obstetrics* for 1881, particulars of ninety-eight cases collected by himself are given, and from these and 417 cases previously reported by Dr. Trask, he draws the following conclusions:—1. That rupture of the uterus is exceedingly rare, occurring only once in 4883 cases. 2. That the most frequent causes are, in their degree of frequency, deformed pelvis (more especially diminished antero-posterior diameter), disease of the uterine tissue, malformation and abnormal positions of the child, ergot and traumatism. 3. That the symptoms are easily recognised, almost always present, and generally very severe. 4. That the prognosis is exceedingly variable, the greatest number of recoveries being one in three. 5. That the greatest number of ruptures takes place in the third and fourth pregnancies, and between twenty-five and thirty years. 6. That gastrotomy is the preferable mode of delivery when the child has escaped into the abdominal cavity.

In remarking on the foregoing case, there is little doubt that the rupture had taken place in the morning before I was called, and accounted for the cessation of uterine contraction and the high position of the fœtal head. As in the cases recorded by Bandl, the cause of rupture was a well-developed uterus forcing the fœtal head down on a thin stretched cervix. But the predisposing cause here is not, as in his cases, a narrow pelvis, hydrocephalus, or transverse presentation, but a great obesity and consequent want of abdominal support, the uterine axis falling forward and its force telling on the posterior part of the cervix instead of on the pelvic brim. As regards the management of the case, the partially decomposed condition of the child, coupled with the high position of the uterus, explained how a much less strain than was quite permissible in ordinary cases would readily produce rupture of the vertebral column and afterwards of the more yielding tissues of the neck; and I must frankly confess that, had I the same case to manage again without further knowledge of the condition of the child, I could suggest no more suitable modification of the procedure then instituted, so far as it went. But in the present state of abdominal surgery, and considering that, notwithstanding the exhausted condition of the patient and the threatened collapse, the patient lived for more than eight hours, should it be my fortune to meet with such another case, I would certainly have recourse to surgical aid and resort to abdominal section as the only chance of saving the patient's life.

In conclusion, I have to express my sincere thanks to Professor Stephenson and Dr. Hall for the readiness with which they came to my assistance and the trouble they took in the conduct of the case.

WEST LONDON HOSPITAL.—The twenty-eighth festival of this institution was celebrated on the 17th inst. by the annual dinner, which was presided over by the Lord Mayor. During the past two years the hospital has greatly increased its work by the addition of a new wing, and the medical and nursing staffs have been considerably augmented. Powerful appeals on behalf of the institution were made, and the secretary in the course of the evening announced subscriptions amounting to £680.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nullaantem estalia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CASES OF CONCUSSION OF THE SPINE.

(Under the care of Mr. BRYANT.)

CASE 1. *Injury to Head and Spine; Cystitis; Suppurating Kidney; Softening of Cord; Death in one month.* — George W. R——, aged sixty-three, was admitted into the accident ward on Jan. 30th, 1880. On the 27th, at 6.30 P.M., he fell down a flight of stairs and struck his head against a bolt on a door at the bottom. He was picked up insensible and put to bed. Shortly afterwards he became delirious, and it was recommended by a medical man that he should be taken to Guy's Hospital.

On admission the man was found to be suffering from three scalp wounds, the largest being situated on the upper part of the frontal bone and in the middle line, and the two smaller ones about an inch and a half above the outer angle of the right eye. The patient complained most of inability to move his neck, which was stiff; he had no power to grasp, and experienced a numbness and tingling in the hands, feet, and legs. He had also pain at the angles of the lower ribs, especially when he breathed deeply. He could not move his legs at all, nor retain his urine. The bowels had been constipated ever since the accident. The abdomen was distended below the umbilicus, and was very tense. The patient stated that at the time of his fall he bled profusely from the nose, but he did not know whether he bled from the ears or not. There was no ecchymosis of the tissues.

On the day after admission the patient could move his right leg comparatively well, but the left leg was powerless. The urine was drawn off by a No. 6 catheter. Twitching of both legs. Pulse 64, full; tongue dry and pale. On Feb. 2nd he could move his left leg fairly well, and had a little more grasping power in both hands. Pulse 64; head wounds cicatrising; tongue furred. On the following day he was still better, though it pained him to move his legs, but motion was rather more extensive. Temperature 96·6°; pulse 60. The urine was drawn off with a No. 4 catheter. On the 4th it was stated that he had been very noisy in the night, with great pain in the lower extremities. He had no control over the sphincters; tongue very furred. Temperature 102°; pulse 80. Next day he seemed very ill, complained of great pain in breathing, moved his limbs to about the same extent as before; was rather quieter last night. On the 6th he passed his water involuntarily. A sore had formed on the buttocks; the spine in the dorsal region was exceedingly sensitive to touch, and pained him very much. On the 7th he complained of much cramping pain and inability to sleep; was thirsty; tongue very foul, coated with brown-and-white fur, very thick. Pulse 80, weak. His urine is still drawn off. On the 9th he had slightly more pain in the left than in the right hand, could move his legs considerably better, slept fairly well; took his food better, but had much thirst; tongue still very furred, but less so than on the 7th. On the 10th he muttered constantly during sleep. The specific gravity of the urine was 1022, accompanied by pus, blood, and albumen. On 12th the urine was very offensive; temperature normal; patient worse. On the 14th he could move his feet and knees. The specific gravity of the urine was 1015, no sugar, no blood, no phosphates, but pus-corpuscles and albumen present. On the 18th he had much pain in the hypogastrium; tongue cleaner; could move his legs better than he did. The specific gravity of the urine was 1015, and containing pus-corpuscles and phosphates; no blood-corpuscles discoverable under the microscope. Bladder washed out daily with iodine solution. He gradually got worse, and died on the evening of the 23rd.

Necropsy.—There was a bedsore two inches and a half by three and a half over the sacrum. The bones of the spine were all healthy, except that there were osteo-arthritic undulations on the articulating edges of the vertebral bodies. The spinal cord was apparently quite healthy, but on section was certainly soft throughout, and in the upper dorsal region, at its commencement, there was a central softening of the grey matter, which showed broken-down nerve-structure, and many Gluge's corpuscles. In both kidneys there were extensive tracts of suppuration. The surfaces were scattered all over with large mottled areas due to the presence of suppuration, and on section these parts were found infiltrated by pus in a wedge-shaped form down to the pelvis. Both pelves were intensely inflamed. The bladder was dilated and sacculated, the muscular trabecula forming hollow sacs, in which there was a quantity of pus. The bladder was full of offensive pus. The ureters did not look unhealthy.

CASE 2. *Concussion of Cord in Cervical Region, followed by Partial Paralysis; Convalescence.* (Reported by Mr. L. J. Kidd.)—George J. S——, aged thirty-eight, a fellowship porter, was admitted, on Jan. 28th, 1882, into the accident ward. He was working in a ship's hold, when a bag of mats (about a hundredweight and a half) fell about thirty or forty feet, striking him directly on the top of his head. He was standing up straight at the time. He was insensible for three minutes, but afterwards did not think that he fell down directly. He recovered sensibility, but for twenty minutes was unable to move his legs. He gradually recovered the use of his legs, but was unable to raise his arm or move his hands. He was taken to the hospital, and walked from the surgery to the ward.

On admission, he complained of great pain in a ring running round his neck, about the level of the sterno-clavicular articulation. He had numbness and sensation of pins and needles over both arms as far as the elbows, and particularly on the right side. He was able to move his forearms and hands. The pupils were irregular, the right being dilated and the left contracted. He had no sickness nor involuntary passage of excretions. No displacement could be detected in the cervical spine, and no bruising was perceptible. Pulse 68; respiration 24, abdominal and thoracic; temperature 98·4°. Sand bags were laid by his head. He was given a pint and a half of milk per diem. On the 29th the urine was drawn off twice.

On Feb. 1st the patient could raise and adduct the left shoulder and support the arm when raised. There were flexion and extension of the elbow with fair power (about one-fourth normal). Could not raise the right arm. Shoulder movement feeble. Flexion and extension of the elbow about half power in the left side. Grasp of the right hand much stronger than the left (about one-fourth normal). No anæsthesia; no hyperæsthesia. He had pain on the outer side and front of both arms, and on the back of the forearms and tips of the fingers. These parts felt a little numb, but less so than they did. Power of legs good (full extent). On the 6th he could move his head in all directions and without pain. Had still pain and tenderness in the arm from the shoulder down to the elbow. No particular nerve distribution could be localised. He had pain at the back of the neck during the night. The hands still felt numb. The sensation of pins and needles had disappeared. On the 8th he could raise the right arm and support it for a short time. The tips of his fingers were still numb. He could tell the number of marbles placed in his palm, but stated that with his fingers he could scarcely feel them.

On March 9th a collar was ordered to be put on the neck, and his arm to be galvanised. On the 16th the patient was discharged. He was able to raise his right arm rather better, but the grasp was still feeble. He still complained of pain in the region of the first dorsal nerve. A leather collar was put on, as he complained that his head was inclined to fall forward.

SAMARITAN FREE HOSPITAL.

(DORSET HOUSE BRANCH.)

CASE OF STONE, WITH SEVERE CYSTITIS AND VESICO-VAGINAL FISTULA; REMARKS.

(Under the care of Dr. PERCY BOULTON.)

SARAH A——, aged twenty-seven, attended at the hospital on Jan. 2nd, 1884, in an exhausted condition. She had been passing thick urine for eighteen months, always with intense pain. Six months previously she had been delivered with difficulty of a dead child by means of the forceps, after a labour of twenty-six hours. She had been told that a vesico-vaginal fistula was the cause of her illness, but at the out-patient department of the Samaritan Free

Hospital she was seen by Mr. S. Keith, who found she had a stone, and sent her into hospital under Dr. Boulton.

The patient, on admission, was very exhausted and emaciated from continual pain and loss of sleep. Temperature 100°; pulse 120, very small; tongue and mouth covered with aphthæ; abdomen very tender on pressure. The vulva was coated with phosphates, the urine dribbling away through a small fistula at the neck of the bladder. With the finger in the vagina and a sound in the bladder, a stone was felt that appeared to be about three inches long and two inches thick. There was very severe cystitis.

On Jan. 3rd, Dr. Amand Routh having administered methylene, Dr. Percy Boulton performed vaginal lithotomy, selecting this treatment for three reasons: (1) to remove this large stone as speedily as possible; (2) to let the bladder drain after the operation, and so cure the cystitis by perfect rest; and (3) because there was already a small fistula which would require later treatment, and enlargement of this was of little consequence. Through a two-inch incision Dr. Percy Boulton was able to introduce his finger, and he then found there were two stones—the larger one the size and shape of a hen's egg, and the other like a horse chestnut. As the larger one could not be extracted through this opening, Dr. Percy Boulton broke it into four pieces, when it was found to be a phosphatic deposit on a hairpin. The bladder was quickly emptied of its contents (weighing close on a quarter of a pound), and then washed out.

The patient made a speedy recovery, and the fistulous opening has been since successfully closed.

Remarks.—The whole of the miseries and eighteen months' suffering of this poor woman arose, no doubt, from the introduction of the hairpin into the bladder, of which the patient declared she had no knowledge whatever. Then followed cystitis, pregnancy, a difficult labour, possibly owing to impaction of the stone between the head and the brim, a vesico-vaginal fistula from prolonged pressure during labour, since which six months' further wretchedness and failing health owing to constant pain and discomfort from perpetual moisture, and consequent loss of sleep.

SALFORD ROYAL HOSPITAL.

CASE OF ACUTE TRANSVERSE MYELITIS; RECOVERY; REMARKS.

(Under the care of Dr. DIXON MANN.)

FOR the following notes we are indebted to Mr. F. H. Folkes, house-surgeon.

T. H——, a boy, aged fifteen, was admitted on Jan. 25th, 1883, suffering from paraplegia. The family history was significant. His father had contracted syphilis, and is now suffering from aneurysm of the aorta; his mother, previous to his birth, had eleven stillborn children consecutively; after the birth of the patient she had another boy, who is healthy. The patient himself bears well-marked indications of inherited syphilis. For the last two years he has complained from time to time of weakness in the legs; he has also suffered from nocturnal incontinence of urine. In December last he felt pain in the lumbar region, which was increased on pressure; this was followed by shooting pains down the legs and muscular twitchings. He continued to go about until January 16th, 1884, when he fell three times whilst walking on the level from weakness of the legs. Two days later both legs were fully paralysed.

State on admission: The legs were completely paralysed both as to sensation and motion. The muscles of the legs were rigid. The superficial reflexes were exaggerated, especially the solar and cremasteric; the deep reflexes were also exaggerated, tetanic muscular contraction could easily be produced by a rapid succession of gentle taps on the patella. When the legs were extended a smart blow with the percussion hammer on the front of the tibia, midway between the knee and ankle, produced contraction of the quadriceps femoris, not only of the side stimulated but also of the other leg. Ankle clonus was not well marked. The electrical reactions were in excess, especially to the faradaic current. The spine was painful in the lumbar region and tender on pressure. The patient complained of a feeling of constriction round the abdomen. The bladder was paralysed, necessitating the use of the catheter; the urine was ammoniacal; there was no priapism; the skin over the sacrum was red, and there was an incipient bedsore. There were no febrile symptoms, if any had been present they had subsided before admission. The temperature was normal and the pulse 70. The patient was put under antisyphilitic treatment.

Jan. 31st: Legs the same; bedsore spreading; urine contained blood.

Feb. 2nd: Some sensation had returned. The patient can feel needle prick (delayed about a second and a half) all over the legs, but is uncertain as to the localisation on the outer part of the thighs and legs. Has passed urine unaided; bedsore looking healthier.—7th: Sensation fully returned but still delayed; can localise needle prick anywhere. Can move legs freely in bed; urine normal. The patient gradually improved, and on March 27th could walk about the ward unaided. On April 7th he walked some distance in the street, and was discharged on the 17th, able to go about as usual.

Remarks by Dr. MANN.—It seems probable that changes in the vascular supply of the cord had been going on for some time before the acute attack. As is well known, syphilis is prone to produce infiltration either into the adventitia of the vessels or under the endothelium; in either case the lumen of the vessels so attacked is diminished, and the inner surface frequently roughened, favouring thrombosis. The weakness of the legs complained of before the acute attack was doubtless caused by defective nutrition of the cord produced in this way. The acute attack was probably due to syphilitic thrombosis producing sufficient softening of the cord, without destruction of tissue, to arrest its conductivity for a time. When resolution took place the cellular elements having suffered from arrest of function only, without disintegration, or of but limited amount, conductivity was rapidly re-established.

Medical Societies.

MEDICAL OFFICERS OF HEALTH SOCIETY.

AT a meeting of this Society held on May 16th, a paper on the Sanitary Supervision of Bakehouses, with especial reference to those of Birmingham, was read by Dr. ALFRED HILL, medical officer of health to Birmingham. After some opening remarks, Dr. Hill went on to say that the transfer of the inspection of bakehouses by the Amendment Act of last year from the factory inspectors to the medical officers of health is really not the inauguration of a new system, but a reversion, after five years, to an old one, which had previously been in operation for fifteen years; and seeing that the duties involved refer principally to sanitary conditions, it must be admitted that the change is made in the true interests of public health. The inspections of the first seventy-seven bakehouses were made by Dr. Hill, assisted by the inspector of nuisances; but on it being found impossible for the medical officer of health to personally conduct the inspection of the whole of the Birmingham bakehouses, which number probably about 600, an assistant was appointed to devote his whole time to their inspection, together with that of the milkshops. Between the passing of the Amending Act and the 30th of April, 198 bakehouses have been inspected; their sanitary condition may be regarded as generally satisfactory. The points to which attention has been directed are position, cubic space, cleanliness, ventilation, accumulations of refuse, frequency of limewashing, keeping of animals, the employment of women, youths, or children, provision for sleeping, existence of waterclosets, &c., in or adjoining bakehouses, and water-supply. The positions varied greatly, but were generally suited to the requirements of convenience and health. The cubic space also greatly differed, the average amount being 827 cubic feet per head; in no case could there be said to be overcrowding. Cleanliness was well observed, as a rule, both as regards the condition of the walls and surfaces and the state of the utensils, while drainage defects were found in only twelve instances. Generally speaking, the ventilation was as satisfactory as could have been expected. Only four accumulations of refuse were found, no animals were discovered except dogs, which were kept in three instances, and in only one case was the odour of mice detected. The employment of children, young persons, and women obtained in fifty of the bakehouses, the numbers of each class being one child, thirty-six young persons, and twenty-one women. In no case did Dr. Hill find sleeping rooms, waterclosets, or other similar forms of convenience in contiguity with the

bakehouses. Generally speaking, the visits of Dr. Hill and the inspector have been hailed with satisfaction, by both the master and his *employés*.—In the discussion which followed, the President, Dr. Bate, Dr. Corner, Dr. Simpson, Dr. Alfred Carpenter, Mr. Lovett, and Mr. Shirley Murphy took part.

Dr. GEORGE PADDOCK BATES, medical officer of health for St. Matthew's, Bethnal Green, read a paper on the Calculating Slide Rule as an Assistant to the Medical Officer of Health in Mensuration and Statistics. The author remarked that slide rules are instruments of immense use for purposes of calculation; they are easily learned, and are not liable to get out of order. To those who have once worked with the slide rule, and acquired facility in its use, it is always a matter of astonishment that an instrument so rapid and accurate in its results should be so little known, as the drudgery of calculation is saved, and the trouble and liability to error involved in figuring out long sums are avoided by the help of this instrument. The ordinary slide rule is a very portable instrument, but its scale is so short and the divisions so minute that considerable practice is required before it can be used so as to obtain accurate results; moreover, it is very trying to the eyesight, for in each operation the first figure only is read, and the others have to be found by counting up so many tenths, hundredths, and thousandths. The rule to which Dr. Bates wished to draw special attention is the one which is the invention of Professor Fuller of Belfast. In this the scale is wound in a spiral form upon a cylinder, and the reading is performed by indices instead of by slide against slide. This spiral slide rule is equivalent to a straight slide rule, 83 ft. 4 in. in length, the divisions are thus much more open than in the short rule, and the results are more easily and accurately read. In each operation the first three figures will be found engraved upon the rule, the third is counted up by the number of tenths, and the fourth has to be estimated by the eye as a quarter, half, or three-quarters of a tenth; the results are then absolutely correct up to the fourth figure, while the fifth and sixth are only approximately so, but with practice great accuracy may be obtained. All numbers and divisions are to be read decimally, so that owing to our want of a decimal system all measurements and quantities must be converted into decimals before they can be worked on the rule. In order to simplify this process as much as possible, a series of tables are engraved upon the body of the rule giving the value in decimals of fractions of the various measurements of length and capacity, and also of money and time, together with some other very useful tables of values. The rule consists of a cylinder (upon which is engraved the scale). This can be moved up and down upon and turned round a body or axis which is held by a handle; fixed to the handle is an index called the "fixed index"; two other indices (whose distance apart is the axial length of the complete spiral) are fixed to a telescopic tube which slides in and out of the body, these indices can thus be placed in any required position with regard to the cylinder or to one another. The rule will work with the greatest ease, and certainly multiplications and divisions containing a series of factors, single and double proportion, rates and interest, and by means of the upper scale which it would be somewhat confusing to describe without the rule in hand, the powers and roots of numbers are within the capacity of the instrument. The scale commences with 100 and ends with 999; the hundred is read either as one or ten or a hundred or a thousand as may be required; all the others follow in like manner, so that 999 may be either ·999 or 9·99 or 99·9, or the whole number; thus it is always necessary to know the value of a result for which there are certain simple rules laid down. The manufacturer of the instrument is Mr. Stanley of Great Turnstile.

CAMBRIDGE MEDICAL SOCIETY.

A MEETING of this Society was held on May 2nd, Mr. James Carter, President, in the chair.

Dr. SMITH, in continuing the adjourned discussion on Dr. Latham's paper on Uric Acid, remarked that, considering the vast quantity of products to which uric acid may give rise and the ways in which we can conceive its formation in the body, we should hesitate to ascribe its origin to the conjugation of any two particular substances unless we have strong reasons for doing so. Dr. Latham's theory demands the preformation of large quantities of glycocine and urea in animals in which uric acid is largely excreted, as in birds and reptiles. There is no proof of this. Dr. Latham thinks the glycocine comes chiefly from the bile because in carnivora, which form scarcely any uric acid, taurocholic acid and no glycocholic acid is found. But exactly the same may be said of the bile of snakes, which largely secrete uric acid. Again, there is no proof of the preformation of urea in birds and reptiles. The use of the metabolism of the cells is to produce energy, and it seems contrary to the way nature usually works to manufacture force by highly oxidising the tissues to urea and then use it again in forming uric acid. Uric acid seems to be formed not only in the kidneys, but in many organs, as the spleen, liver, &c.; and Kölliker found urate of ammonium in the acting cells of the light organ of the glow-worm. The question may perhaps be elucidated by regarding it from an evolution point of view, and looking on the abnormal excessive formation of uric acid in man as due to a reversion to a former type, the reason why the lower vertebrates excrete so much uric acid being due to the greater importance of the kidneys, and the smaller use of the lungs, and the advantage of increased economy of oxygen rather than of nitrogenous food. The old theory that uric acid is due to defective oxygenation, and which Dr. Latham discusses as untenable because birds secrete uric acid instead of urea, is held by many good chemists, as Dr. Odling, who satisfactorily explains away the objection in his work on Animal Chemistry. This old theory, too, will explain the presence of excess of uric acid in such diseases as leukæmia, fevers, affections interfering with digestion and respiration, &c. Finally, we are in no better position, if we adopt Dr. Latham's theory, to treat gout more scientifically than we can now do, granted we have a good knowledge of the chemistry of uric acid.—Mr. LAURENCE HUMPHRY, in criticising Dr. Latham's hypothesis as to the action of benzoic acid and the benzoates in the treatment of gout, referred to Dr. Garrod's experiment with hippuric acid. If an excess of the urine of a horse be added to human urine containing uric acid, the latter after a time disappears from the urine; and it was concluded that benzoic acid which was converted in the system into hippuric acid might act in the same way. The difference in the composition of the urine in the sucking calf and the adult animal might be similarly explained.—Dr. LATHAM replied.

Dr. BRADBURY brought forward a case of Perfect Recovery from Tubercular (?) Meningitis in a child. The patient was shown. A little girl, aged two years and a half, first came under his care in the hospital on June 14th, 1883. She had been under one of his colleagues in the March preceding. The following were the notes of her case during the whole period. Admitted on March 13th. No family history of phthisis or other heritable disease. No previous illness, but always a healthy and intelligent child. She had been noticed to pass thread worms some time ago. Twelve days before admission she vomited once and slight convulsive movements were noticed. Retraction of the head had been present ever since, and she became fitful and peevish. Headache had been constant for a week, and she screamed at night. On admission she was somewhat wasted, lay with the knees drawn up, and there was marked retraction of the head and abdomen. She screamed when disturbed; no squint, pupils natural; quite sensible; pulse 100; temperature 100°; respiration regular. Her condition remained much the same for the next few weeks, the temperature varying between 103° and 97°. On April 7th, her friends removed her from the hospital. On readmission on June 14th, the previous symptoms were more marked, she had lost flesh rapidly and ceased to recognise her parents; in addition vomiting was constant, and a squint was noticed frequently; the pupils acted readily, and were equal; no abnormal sounds in the lungs; the temperature was very erratic, between 102° and 98°, but usually higher in the evening than the morning. She was given a grain and a half of iodide of potassium three times a day on admission, and this was increased to two grains soon after, and on July 12th she began to take cod-liver oil in half-drachm doses. The note on July 26th showed some improvement, the vomiting had ceased, and the squint was much less frequently noticed, but the retraction of the head continued, the right leg was extended and rigid, and the legs were not moved. Bedsores appeared on both hips. On August 16th all the symptoms were less marked, and the temperature chart showed a lower level and less variations. She was very hungry and was gaining flesh, but took no notice of anyone. The squint had disappeared, the abdomen was filling out, and the head was less retracted. In October and November all the symptoms had

cleared up, she recognised her parents, and was able to say a few simple words. This improvement continued through the next few months, in spite of an attack of whooping-cough. Her mental condition was, however, impaired, but her bodily health was robust, and she continued to improve. Dr. Bradbury thought this case ought to encourage perseverance with treatment, even when the aspect was very unpromising. The case was interesting to him as being the only one of meningitis he had known recover, and although there were some things against it, he was inclined to think that it was probably tubercular. The long duration of the attack was curious, the average duration of tubercular meningitis being usually about three weeks. The treatment had been the iodides and cod-liver oil, with careful nursing and feeding. There was no history of congenital syphilis.—Dr. LATHAM thought it was probable that some cases of tubercular meningitis did recover, and he related a case of a girl under his care, who had very marked symptoms of tubercular mischief, including severe convulsions, the case appearing hopeless. She recovered, however, from this, and some time after died with signs of tubercular disease of the lungs, but there was no post-mortem.

Reviews and Notices of Books.

Report on the Scientific Results of the Voyage of H.M.S. "Challenger." Zoology, Vol. VI. Prepared under the Superintendence of the late Sir C. WYVILLE THOMSON, F.R.S., and now of JOHN MURRAY, F.R.S.E. London: Longmans and Co. Edinburgh: Adam Black. Dublin: A. Thom and Co. 1882.

THE contents of this volume are two reports—one by Prof. Richard Hertwig on the Actiniaria, and a second on the Tunicata by Prof. Wm. A. Herdman. Both of these subjects are interesting, and the material obtained in the dredging operations of the *Challenger* seems to have been considerable. Prof. Hertwig, before describing any of the specimens committed to his care, gives a short sketch of the general anatomy of an actinia, describing its base, body, and peristome, the marginal, circumoral, and intermediate tentacles, the cardia and cœlenteron or body cavity. He then enters into minute details in regard to the structure of the several parts, minutely describing the different forms of cells, as the "supporting," "urticating," and gland cells. He particularly dwells upon the muscle cells, and points out that in describing the muscles of the actiniæ it is important to note whether they are ectodermal, endodermal, or mesodermal, whether they extend simply in a smooth lamella, or are disposed in folds, since many characters of systematic value may thus be obtained. Nerve fibres and ganglion cells are found in thoroughly examined actiniæ in nearly all the epithelial laminæ, where they form a layer between the bases of the epithelial cells. Visible cords are only found in the mesenteric filaments and acontia. Prof. Hertwig finds that many of the specimens were useless for accurate histological investigation in consequence of their having been first placed in chromic acid and then in alcohol, which rendered them dry and so friable that they fell to pieces like tinder on the slightest pressure. It may be worth while to say that the following points should be attended to by those who wish to preserve actiniæ for subsequent examination:—In the first place the animals should be kept separate till they are completely hardened, in order to prevent them being flattened, while soft, by pressing against each other. In the second place, it is advisable to syringe the inside of the animal with alcohol, inserting the nozzle of the syringe through the mouth, or through a hole made in the wall, or the pedal disc; and to fulfil all requirements exactly, the actinia before being preserved should be subjected to a process which Hertwig and his brother have described, and which paralyses the muscles. The characters of the Actiniaria are thus given:—Polyps with simple unpinnated tentacles and with septa, the number of which is usually a multiple of six, without skeleton. Body moving freely or adhering to supporting substances by means of suction of the pedal disc, rarely firmly fixed; animals usually solitary, rarely forming colonies. He regards the Corallimorphidæ, the only genus of which has been described by Mosely, as the lowest form of the group, and the Sagartidæ and Amphianthidæ as the highest. Amongst the new forms is one to which the name of Anthromorphe is given, in which the tentacles form a single row, varying in length, but which were dredged from a depth of 17,400 feet, or 2900 fathoms, showing that these animals can live at great depths and under enormous pressure. Of the specimens obtained, by far the most numerous belonged to the various families of Hexactiniæ. Of the other tribes—Paractiniæ, Monauleæ, Edwardsiæ, Zoantheæ, and Cerianthea—the number of families and genera were much more limited. It appears that Professor Hertwig did not have all the Actiniaria obtained by the *Challenger* at his disposal, and a supplementary report is promised in the course of this year. The present report is illustrated by fourteen plates, each of which contains many figures illustrating the structure of the animals examined.

The report on the Tunicata, owing to the circumstances above referred to, is much more complete and satisfactory, and is indeed a very complete account of the entire group, the development being alone omitted, the reader being referred to Balfour's work on Embryology. The first description of an Ascidian we owe to Aristotle, who gave all the more salient points in the macroscopic anatomy of these animals; but after Aristotle, Pliny and Ælian are the only authors who mentioned them for no less a period than fourteen hundred years, when they were again described by Bellonius and Rondeletius. After this period the group of the Tunicata attracted the attention of many observers, and the names of Bolten, Gaertner, F. O. Müller, Savigny, Chamisso, Delle Chiaje, Lister, C. Schmidt, Huxley, and Hancock, will be familiar to many of our readers as naturalists who have added considerably to our knowledge of their forms. Prof. Herdman has given an excellent bibliography of the Tunicata, in which he cites upwards of 500 memoirs. Prof. Herdman then describes in detail the minute anatomy of this often ugly, or when not ugly, strange and bizarre group of animals. The discovery of cellulose in the test by Karl Schmidt destroyed one of the points of diagnosis between plants and animals that was formerly much relied upon. The cellulose is chiefly contained in the outer tunic. The inner tunic is composed essentially of connective and muscular tissue. The structure of the characteristic branchial sac and the disposition of the peribranchial sac and tentacles of the alimentary canal and renal organs are illustrated by many drawings. A long section then follows, devoted to the several specimens obtained by dredging, from which it appears that the *Challenger* expedition obtained simple Ascidians in all of the seven great areas into which the seas of the globe have been divided, and further, that they were much more abundant in the Southern Pacific Ocean, including the Australian region, than elsewhere. It is remarkable that the Ascidiidæ are entirely wanting only from the seas of the Malay Archipelago, whilst they are pretty equally distributed over the six other areas. The Molgulidæ are not represented in the Atlantic Ocean, the North Pacific, and the seas of the Malay Archipelago. The Cynthinæ are again entirely absent in the North Atlantic, the Southern Ocean, and round the Southern end of America. The Styelinæ are found everywhere except in the North Atlantic. The Clavelinidæ only occur in the North and South Atlantic and the Malay region. The Cynthiidæ are found in all the areas. The most interesting forms of Molgulidæ obtained are the two species of Ascopera. These have the posterior end of the body prolonged, so as to form a peduncle by which the

animal is attached. They are destitute of hairs on the test, and have no adhering sand grains. Amongst the Cynthiidæ two new genera have been found closely allied to Boltenia. They have been named Culeolus and Fungulus. Both are very fully described. In the Styelinæ, besides a number of new species belonging to the large genera Styela and Polycarpa, a specimen from deep water was obtained, which has necessitated the formation of the new genus Bathyoncus. In the family Ascidiidæ four new genera have been found. Professor Herdman considers the anustial form of all the simple Ascidians to have been something like a Clavelina without a peduncle—that is to say, it had an elongated body, with the stomach lying behind a branchial sac; it had unbranched tentacles, and a simple branchial sac, without folds and destitute of longitudinal bars; and, finally, it had the power of reproducing by gemmation. The author promises to issue shortly a second part of this report. The present report is illustrated by no less than thirty-seven beautifully executed plates and many woodcuts, and is altogether a very valuable addition to our knowledge of this group of animals.

OUR LIBRARY TABLE.

Scarborough as a Health-resort; its Physical Geography, Geology, Climate, and Vital Statistics. With Health Guide Map, &c. By ALFRED HAVILAND. Pp. 100. London: Hamilton, Adams, and Co. 1883.—This is an exhaustive account of the physical geography, geology, and climate of Scarborough, and affords all the information necessary to decide upon its suitability as a health-resort. The Registrar-General's returns show it to have a comparatively low death-rate, the average of the ten years 1873–82 having been only 18·4; it appears to have enjoyed a marked exemption from zymotic diseases and also from consumption. The drainage is good and the water-supply abundant and of excellent quality. There is one point connected with the health of Scarborough which we think deserving of high commendation. A voluntary system of inspection of hotels and lodging-houses has been adopted, and a register of their sanitary condition is kept at the town hall. If the result of the inspection is satisfactory a certificate is given to the householder, so that visitors by asking for the production of this, or by reference to the register itself, can always ascertain whether the house is in a satisfactory condition. Obviously, no one should omit so wise a precaution. It removes at least one of the risks, and a very serious one, to which families are exposed when they go from home for the enjoyment of their annual holiday. Mr. Haviland has omitted all reference to the Spa, as he says the chalybeate and saline springs are too well known to require any comment. Should any of our readers, however, desire information on the subject, they may refer with advantage to Dr. Alexander's work on Scarborough, in which will be found "Analyses of the Mineral Springs and their Medicinal Properties."

The Leamington Waters, Chemically, Therapeutically, and Clinically considered, with Observations on the Climate of Leamington. By F. W. SMITH, M.D. pp. 61. London: Lewis. 1884.—The object of this little book is to induce the medical profession, and especially London physicians, to send their patients to Leamington instead of Homburg and some of the other fashionable health resorts of the Continent. From the description of the town given by the author, it appears to have two very strong points in its favour—a good system of drainage and an abundant supply of pure water, with the natural result of an almost entire absence of typhoid fever, diphtheria, and other zymotic diseases. If we are disposed to think the author somewhat over-estimates the therapeutical value of the mineral waters and considers them applicable in too wide a range of cases, we agree with him in the opinion that the rest, regular hours, equable climate, and enchanting surroundings of Leamington, combined with a judicious use of the waters in cases which require it, are likely to prove at least as effectual in restoring to health those who have broken down under the strain of the night and day entertainments of the London season as a resort to any of the fashionable Continental watering-places with their, in too many instances, very insanitary conditions.

The Holiday Annual. A Handbook of Practical Information on Holiday Topics. Edited by A. B. C. Pp. 60. London: Causton and Sons. 1884.—This is the eighth issue of a handbook which will be found useful in the way of suggesting holiday trips at home and abroad. But we must protest against the terrific pace at which some of the continental tours described in it were accomplished. For instance, conceive a tourist with any sense of the beautiful scampering over Naples, Pompeii, and Vesuvius in two days, devoting only four days to seeing Rome, two days, one of them being a Sunday, to Florence, twelve hours to Genoa, five hours and forty minutes to Milan, and four hours and twenty minutes to Turin, while another seems to have contented himself with three hours for Cologne. The home tours appear to have been made on much more rational principles, and may be referred to with advantage by those who are content to enjoy their holiday in the United Kingdom. We would suggest to the editor in his future annual issues, and we hope they may be many, to restrict his contributors to sketches of such tours as may be interesting and instructive, instead of merely showing how much locomotion may be compressed into a brief space of time. A supplementary number is to be issued in July, which will relate almost entirely to home trips.

The Family Guide to Brussels. Comprising Hints upon Hiring Houses, Furniture, Servants, Cost of Living, Education, and the General Information necessary for a Family purposing to reside in that City. By J. H. SCOTT, of Brussels. Second Edition, pp. 192. London: Stanford. 1884.—This is the second edition of a work originally published thirteen years ago, and brings down the information on all the subjects treated to the present time. It is in no sense a traveller's guide book to Brussels, but contains all the information which may be required for families purposing to reside there for any length of time, and especially with a view to education and economy. The advice given in it appears to be judicious, and well calculated to prevent unreasonable expectations being formed. It is a very practical work, and bears unmistakable evidence of personal knowledge of the subjects treated.

New Invention.

PICKARD AND CURRY'S DOUBLE ADJUSTABLE TRIAL FRAME

THE principal advantages claimed for this frame are its extreme lightness and the great facility which it affords for working out cases of astigmatism, whilst the mechanism is of the simplest description. It consists essentially of two flattened graduated rings, behind which are semicircles for the reception of the spherical lenses. In front of each broad graduated ring is a narrow movable one, to which is attached a steel semicircle, for the reception of the cylindrical lenses. Each movable ring has a small rod-like handle, which projects beyond the graduated ring, and by means of these handles the surgeon can alter the position of the cylindrical lenses to any extent he pleases without touching the lenses or removing the frame from the patient's face. The position of the cylindrical axes can be read off at any time by means of the graduated rings. Both graduated rings are attached by steel stems to a divided bar, one ring being fixed and the other movable; whilst the nose-piece is made to move both vertically and laterally, so as not only to be adjusted to the exact height of the nose but also to the exact centre between the two rings. By means of the graduated divided bar the inter-pupillary space may be accurately determined.

Exeter. LOUIS H. TOSSWILL.

THE LANCET.

LONDON: SATURDAY, JUNE 21, 1884.

THE clouds that have hung so long and ominously over the Council of the Royal College of Surgeons of England have at length broken, but not with blessings on its head. On the contrary, the air is thick with threats, suggestions, and schemes of more or less radical reform. This culmination of events cannot have taken any moderately observant man by surprise. The meanest political capacity must have anticipated it. To those who have had eyes to see, ears to hear, and understanding to appreciate the signs of the times, it has long been obvious that the jealous and unenlightened policy pursued by a small majority in the Council must sooner or later provoke the Fellows and Members to throw off the trammels of tradition, if not to break out into open revolt. Many of the more capable and independent members of the Council have foreseen this, and have endeavoured to avert, by judicious concessions and compromise, anything like a conflict between the executive and the Members of the Corporation. Unfortunately, these prudent counsellors were in a minority, and consequently unable to give effect to their opinions. The rank and file of the Council are satisfied with things as they are, and are fearful, even resentful, of change. Arguments are wasted as much on those who will not understand as those who cannot; otherwise the Council of the College would not, at this time, find itself isolated and cut off from the sympathy and confidence of some hundreds of the Fellows and Members who are sincerely desirous of the present and permanent welfare of the College.

Last March the Council had an exceptional opportunity of revising its policy and readjusting its relations with all the members of the College, but this opportunity a majority of the Council has wantonly, almost insultingly, rejected. It is now a familiar story that last January, in tardy response to the reiterated demands for certain alterations in the Charters, the Council prepared a list of alterations which it proposed to make. Reluctantly, these alterations were submitted to a general meeting of the Fellows and Members held in the College on March 24th. At the same time the Fellows and Members present were invited to offer suggestions and recommendations respecting any other alterations which might seem desirable. The alterations proposed by the Council were, after some discussion, generally approved, and then other alterations were suggested as likely to prove conducive to the welfare of the College—namely, that the Fellows and Members should be invested with a larger share in the management of the College; that no alterations should be made in the constitution or relations of the College without the consent of the Fellows and Members; that an annual report of the Council should be presented at a general meeting of the Fellows and Members for consideration and criticism; and lastly, that the President should be elected by a majority of the Fellows present at such annual meeting. Respecting the first two of these recommendations the Council at its meeting, held on May 8th, resolved that it was *not* advisable to take any action; the third recommendation it accepted, but with a qualification calculated to render it "inoperative." The fourth recommendation was met with a resolution proposed by Mr. HULKE, and seconded by Dr. HUMPHRY, "That in the opinion of the Council the election of President should, as at present, be vested in the Council." Thirteen members of the Council voted in favour of this defiant resolution, and only five against it—namely, Messrs. ERICHSEN, HOLMES, and CADGE, Sir JOSEPH LISTER, and Mr. CHRISTOPHER HEATH (see THE LANCET of May 10th, p. 871, and May 17th, p. 901). Thus all the recommendations proposed by the Fellows and Members were practically disregarded or rejected; but in that rejection Obstruction got its death-blow, for if the votes be *weighed* as well as counted, it will be allowed that, so far as relates to the knowledge of professional needs and collegiate affairs, both the moral and the intellectual quality belonged to the minority. Of the thirteen members of Council who voted in favour of Mr. HULKE'S motion no less than nine were paid examiners, while of the remaining four, two had been in the Council only nine months. As it happens, good rather than harm is likely to follow the action taken by this majority. It has incited the Fellows and Members to form organisations to obtain as a right what the Council had it in its power to concede as a privilege. Some weeks ago a powerful Association of Members was started to promote reform in the management of the College, and last week an Association of Fellows was inaugurated with a kindred object. Both these Associations will doubtless co-operate for the attainment of the common end of obtaining those rights which belong to the Fellows and to the Members respectively. The Association of Fellows at its first meeting reaffirmed the recommendations adopted at the College meeting; and on Tuesday next the Committee will meet to consider what steps shall be taken to give effect to the principles expressed in the articles of association. As a last resource, the obstructives in the Council are now said to cherish the hope that the Association of Fellows and that of the Members will, after all, fail to agree upon a common basis of action. In this, too, they are likely to be mistaken. The Association of Fellows unanimously readopted the recommendations approved by the Members, and it is not likely that the Members will jeopardise the attempt to bring about satisfactory reform by any unreasonable or impracticable demands.

THE mystery that surrounds the origin of so many of the specific infective diseases affords ample scope for the scientific use of the imagination. Some, bolder than others, desire to bring disease within the range of the great hypothesis that has been applied with such success to explain the phenomena of the organic world; and they naturally regard the germ theory, now so widely applied to such diseases, as rendering this explanation all the more probable. There is another aspect, somewhat less exalted and not quite so transcendental, from which the specific diseases of mankind may be considered; and it is one which has not hitherto received much attention. It is that many diseases which are communicable from man to man may not only be communicable from animals to man, but may even be primarily initiated in the lower animals from whom they are transmitted to mankind. And such a

view is not inconsistent with the former, for it would merely mean that the morbid germs, however originating, have undergone changes in their power and activity due to variations in their habitat. Setting speculation aside, facts do occasionally arise which compel a reconsideration of accepted ideas and a pursuance of etiological inquiry far deeper than is the wont.

Some five or six years ago Mr. W. H. POWER, of the Local Government Board, was led by an inquiry he had made into the cause of an outbreak of diphtheria to associate it with a certain milk-supply. But he was unable to find any source of contamination of the milk from external sources, and concluded that it had received its morbific qualities in the first instance; that it was either the secretion of an unhealthy animal, or was contaminated with morbid secretions. His inquiry led him to suspect that garget—a local affection of the udder of milch cows,—might have been the source of the epidemic. The subject was brought before the London Pathological Society, and a committee was nominated; but whether from lack of material or from the difficulties in the way of obtaining sufficiently trustworthy results, the committee has never reported, and it still remains undetermined whether there be any real connexion or not between garget and diphtheria. Nor are we aware of any epidemics—and not a few have been attributed to milk infection—of diphtheria since that date in which a similar hypothesis has been suggested, or in which the conditions for such a view existed. We might not have thought again of this matter, had we not been reminded of it by reading the report which Mr. POWER furnishes in the Report of the Medical Officer to the Local Government Board for 1882, which has just been issued. This time, however, it is not diphtheria, but a disease which is in some respects analogous to it, scarlet fever, that is in question. The facts, very briefly stated, are these. In the winter of 1881–82, the assistance of the Board was sought to explain the cause of an outbreak of scarlet fever, mainly in the parishes of St. Giles and St. Pancras—an epidemic which had been clearly traced to milk infection, all the affected persons being customers of a single milk vendor. It was clearly shown, both in London and at Farnham, where the milk-supply came from, that no scarlatinal disease existed which could have caused contamination of the milk; for, although one of the carriers suffered from the disease in his own person and in that of his children, there was no question that they had contracted it from the milk also. Moreover, some of the milk vended in Peckham was found to have caused a mild epidemic there; and it also happened that several persons who consumed the milk before it reached the London dairy were attacked. Thus, by a process of exclusion, Mr. POWER was driven to infer that the milk contained the virus before it left the farm; and no other explanation seemed possible but that it originated in some condition of the cow itself. On inquiring what, if any, circumstances in the condition of the animals had recently happened which could be at all construed as importing new elements into the matter, he learnt that about the time that the epidemic originated, a cow which had recently calved had furnished milk, which was distributed along with the produce of the rest of the herd, some sixty in number. At first sight it may seem but slender ground to go upon, to argue from this circumstance, by no means a rare event in a large dairy farm, and Mr. POWER advances his theory with his customary caution. He saw the particular animal, and did not note much difference in its appearance; but he conceived it quite possible that either the quality of the milk had been altered by the puerperal state, or that it had been from inadvertence befouled with some of the lochial discharge. Knowing how susceptible the puerperal state is to the scarlatinal poison, he seems to suggest that there is more affinity between the normal and the morbid conditions than we are cognisant of, and hints that the type of scarlet fever which marked this epidemic owed its mildness to its bovine origin, and was therefore comparable with vaccinia. At any rate, the facts as elicited were sufficient to justify further experimental inquiry, and for that purpose the aid of Dr. KLEIN was sought.

Dr. KLEIN had to ascertain "whether the lochial discharges of a reputedly *healthy* cow could, when inoculated into, or administered along with food to, certain other animals, produce in them any obvious illness." And, attacking the question from another side, he also "sought to learn whether any form of illness might be producible in a cow by inoculating and feeding the animal with scarlatinal matter derived from a human source;" and if so, whether such illness was transmissible to other animals. His experiments fall into two series, and for the most part were of negative result. Inoculation of animals of many kinds with the lochial discharge, and with the products of the artificial cultivation of such discharge, failed to produce any illness in the animals. The same cow was shortly afterwards inoculated with the muco-purulent discharge from the throat of a scarlatinal patient, some of the material being also passed down the animal's throat, and ten or eleven days afterwards a swelling appeared at the seat of inoculation, and another upon the jaw; the former swelling suppurated, but there was no marked fever. A dog was inoculated with an infinitesimal quantity of the pus, with the result that a local swelling, which subsequently suppurated, appeared, and the dog was "for a time distinctly ill." From these experiments Dr. KLEIN believed that a distinct disorder was transmitted to the cow, and from it to the dog. In a second series of experiments some unsuccessful attempts were made to inoculate heifers and dogs with scarlatinal material; and a partial result only was obtained by similar inoculation of an unhealthy cow just after calving. Inoculations of dogs, pigs, and guinea-pigs with lochial discharge from this cow, mixed with milk, produced local inflammatory swellings, and in one dog some throat inflammation. Finally, dogs were inoculated with fluid from the inflammatory swellings, which caused pyrexia, throat inflammation, and in the case of one dog a fatal result. These experiments can hardly be said to be conclusive, but they are at least suggestive (1) of the possibility of infecting the lower animals with scarlatinal virus, and (2) of the lochial discharge in an unhealthy cow being possessed of infective properties. So far as they go they afford some support to the hypothesis arrived at by Mr. POWER in his inquiry into the cause of the epidemic; and they point to a line of research which may profitably be pursued with respect to scarlet fever. It is not a little singular that in respect to a disease so highly infective and so generally diffused knowledge concerning its virus should be as yet so defective. As to the connexion between the spread of the disease and

the milk-supply, it is interesting to note that the idea of a primary contamination of milk is no new thing, for we find, in 1879, Mr. POWER, writing (Pathological Transactions, vol. xxx., p. 548) on the relation of scarlatina to milk, says that "in no instance has the intervention of infected water ever claimed to be considered; secondly, that air infection has not come in question, except as part of the question of direct human contamination of the milk; and, thirdly, that, as matter of fact, the surroundings of the milk, after its secretion by the cow, have seldom sufficed to explain its infectiveness;" and he adds that for these reasons in instances of milk scarlatina "observers have generally had in view the possibility that cow as cow and milk as milk may really have been concerned in the production of the resulting disease in the human subject."

THE Registrar-General's Forty-fifth Annual Report, dealing with the vital statistics of England and Wales in 1882, has just been distributed. Although the broad features of the nation's vital statistics are promptly dealt with in the weekly and quarterly returns and in the annual abstract, it is much to be regretted that the detailed annual report is not in the hands of the public until fully sixteen months after the close of the year to which it relates. The Annual Report for Ireland in 1882 was published some months ago; while, on the other hand, the last published detailed Report for Scotland dealt with the year 1880. It is not surprising that the public interest in the slight rise of the marriage-rate, and in the decline both of the birth and death-rates that prevailed in 1882, has been somewhat superseded by that in the similar statistics for 1883, which have now for some months been available. The detailed Annual Report, however, analyses and discusses the revised and classified facts for the year, with the aid of information which can only be derived from the certified copies of the marriage, birth, and death registers, which do not become available for statistical purposes at the central office until six months after the conclusion of the quarter to which they relate. To the medical officer of health, and to all students both of vital statistics and sanitary science, these annual reports should be scarcely the less useful because of the considerable delay in their preparation. It is impossible in a brief notice of this volume of more than 200 pages, consisting mainly of tabular matter, to do more than refer to one or two subjects in the Report that are specially dealt with.

From a social and physiological point of view, the discussion of the geographical distribution of illegitimacy in England is interesting; the illegitimate rate is constantly below the average in the southern counties, is somewhat above the average in the midland counties, and always shows a marked excess in the northern counties, where it approaches the high rates prevailing in Scotland. It is further pointed out that more than 16 per cent. of the illegitimate births occur in workhouses. The death-rate in 1882 did not exceed 19·6, which, although 0·7 above the unprecedentedly low rate in 1881, was 1·2 below the mean rate in the five years 1876–80. The recent reduction in the death-rate in England has been most marked among children and young persons, causing a decrease in the proportion of elderly people in the population. It is pointed out in this Report that the deaths in 1882 were fewer by 48,338 than they would have been if the mean annual death-rate during the ten years 1871–80 had prevailed; of this decrease of deaths, 5460 were due to the altered age distribution of the population. The English death-rate in 1881 and 1882 was lower than in any previous years on record, and the decline was shown at each of twelve age periods. The slight increase of the death-rate among adults which occurred during the years 1876–79 entirely disappeared in 1880, 1881, 1882. The effect of a continuance of the low death-rates that prevailed in 1881, 1882, and 1883 would have a marked effect upon the duration of life. Among the subjects discussed, from a statistical point of view, is the suggested injury to the health of children from the present system of national education. The conclusion deduced from the statistics given is that "they support the view that the strain of education produces in a certain proportion of children injurious effects upon the brain and nervous system; and, indeed, that such should be the case might be anticipated, for a certain amount of risk must almost necessarily be attached to the increased use of an organ, and such risk must be accepted as the inevitable drawback from counterbalancing advantages." We are inclined, however, to doubt whether the statistics given conclusively prove that the mortality of children from diseases of the brain and nervous system has remained stationary, while the mortality from all other causes has so largely declined. Probably sufficient allowance has not been made for the effect upon the statistics of the recently increased precision in the certification of the causes of death of children. This increase of precision is proved by the decline in the number of deaths returned under the indefinite headings atrophy, debility, convulsions, &c. The steady increase in the recorded mortality from cancer is also ascribed to a large extent to "increased accuracy of diagnosis and certification," although it is urged by many, with much confidence, that there is a real increase in the mortality from this disease.

With reference to the manner in which causes of death are certified, attention is called to the fact that 1844 letters of inquiry were addressed to the certifying practitioners relating to the recorded causes of death in 1882. One result of these inquiries was to add no fewer than 428 deaths to those assigned to puerperal fever or other incidents of childbearing, thus increasing the number of deaths from these causes by 10 per cent. Many certifying practitioners appear to overlook the importance of mentioning in their certificates the fact of childbirth whenever death occurs within a month of this event. The defective return of causes of death in inquest cases is also noticed. It is stated that in the city of Norwich during 1882 there were 55 inquests held in cases in which the death resulted from some kind of disease, in 42 of which the finding of the jury was simply "Natural causes," which "for all purposes of classification of deaths by their causes is quite useless."

The deaths referred to violence, and especially those resulting from accident or negligence, were fewer in proportion to population than in any year since 1859. The report contains some interesting and novel statistics relating to the incidence of fatal injury of all kinds upon the two sexes, in different age periods. These are amongst the points more specially dealt with in this Report, which contains the usual tabular matter

and comparative tables, so valuable to medical officers of health and others engaged in the compilation of vital statistics.

THE question of the notification of infectious diseases has once more been fully discussed, and on this occasion, the place of meeting being the Conference Hall of the International Health Exhibition, the public may be regarded as having been taken into confidence as to the various difficulties which the subject involves. Dr. ALFRED HILL, medical officer of health for Birmingham, opened the debate, and in so far as he showed the desirability—indeed, the need—for some system of notification, he appears to have secured unanimity. He then gave some account of the system of voluntary notification, and showed how it had failed in Birmingham. We believe that, except in very special instances, such a system must fail, for the refusal of any one practitioner to fulfil this self-imposed duty has more than once led to a breakdown in the whole scheme. The question, then, remains as heretofore, By whom is the compulsory notification to be carried out? Dr. ALFRED HILL believes it must be done by the medical attendant, and he pointed out that of the thirty-eight towns in Great Britain which had availed themselves of compulsory notification, thirty-four had adopted the system of direct notification by the medical attendant, and thirty of these further required notification by the occupier also. He therefore argued that this dual system was the one which found most favour. The system can, however, hardly be regarded as really a dual one, for in almost every place where the medical attendant has to notify, hardly any steps, or no steps at all, are taken to secure notification by the householder. Dr. ALFRED CARPENTER opposed the throwing of this burden upon medical practitioners, and the feeling of the meeting on this question was such as to induce the chairman, Earl FORTESCUE, to say that he did not think there was a balance of proof to show that medical practitioners should be compelled to do more than warn the householder of the existence of infectious disease, thus making him responsible for communicating the necessary information to the medical officer of health. Hitherto this point has been the main difficulty as regards the passing of any general Act regulating the notification of infectious diseases, and it has been felt that until there is more unanimity amongst those competent to judge as to the proper individual to give the notification, Parliament is not likely to take any steps in the matter. But Dr. CARPENTER raises new points. He is reported to have stated that it had been found that as good results had been obtained in districts in which notification was voluntary as in those places in which it was compulsory, and hence he argued that we had better steer clear of too much compulsion, and trust a little more to moral obligations. In enforcing this argument, Dr. CARPENTER pointed out that the incidence of infectious diseases was higher in Huddersfield, Bolton, Edinburgh, and Greenock than in a number of cases where there was no compulsion. It is not stated whether in the other localities referred to voluntary notification had been carried out; but we are certainly not aware of any places where such a system is in force which can fairly be compared with the large towns cited. And even as regards any failure of success in these large towns, it must be remembered that compulsory notification alone has never been held as sufficient to stay the progress of infectious diseases. The system must be supplemented by other action, notably by the provision of adequate means of isolation; but in at least two of the places named by Dr. CARPENTER there has, during the term of years in which the Act requiring notification has been in operation, been no such hospital provision as is essential to the proper working of the system; and in a third town named, the Act itself had to be amended because it had been so drafted as largely to defeat the object primarily held in view. Failures under such circumstances go for very little in showing that compulsory notification does not effect its intended purposes. Then again, Dr. CARPENTER objects to the medical profession being subjected in this matter to a penal clause, and to a court of summary jurisdiction, and he suggests as an alternative that the failure on the part of a medical practitioner to perform what is a moral duty should rather be dealt with by the medical licensing authorities. In principle we agree with Dr. CARPENTER as to this, but we should have been glad if he had indicated more in detail how this could be carried out, and, above all, what species of punishment he thinks such authorities could properly inflict.

WE announced last week that the Local Government Board had addressed a circular to the sanitary authorities of the country in regard to the very limited extent to which the provisions of the Food and Drugs Acts were enforced. It was quite time that the Government should take the matter in hand, for the evil has long been flagrant. When at last, in the well-known Act of 1875, provision was made for the detection and punishment of the shameful and noxious frauds which had so long disgraced commerce, and against which we had for so many years waged war, the new duties were entrusted to the local sanitary authorities, who were armed with ample powers for the purpose. Local self-government, which has upon the whole worked so well in England, was once more put upon its trial, and the Central Board was only permitted to exercise a general supervision and in some cases to veto, but received practically no power to enforce the working of the Act. Many of the local authorities rose manfully to the occasion, appointed competent officers, and fell, tooth and nail, upon the adulterators. Of course they were successful. Adulteration in such districts was speedily scotched, if not killed, and many a fraudulent tradesman or manufacturer amended his ways from fear, if not from what in a double sense may be called conviction. Many of the public analysts threw themselves into the work with the utmost zeal, improved on old methods and added new ones, and, banded into a small but hard-working society, rendered the work of the adulterator more dangerous to himself than it had ever been before. To the more active of the local boards, to the Society of Public Analysts, and to Dr. BELL and his *confrères* at Somerset House, who have made valuable contributions to the chemistry of food and drugs, the important measure of success which has crowned the Act of 1875 must be ascribed.

But unfortunately there is another side to this picture. Too many of the local sanitary authorities have turned out to be neither active nor intelligent in the matter. The greatest reluctance to carry out the Act has often been shown. Frequently no analyst has been appointed, in spite

of the repeated complaints by the Local Government Board. Sometimes, probably from motives of false economy, an inefficient man, willing to accept an almost nominal remuneration, has been selected, and in many other cases, the analyst, competent or incompetent, has been left, by the supineness of his employers, almost without work to do. Things cannot go on in this way. The success of the Act in some places shows that it might be made successful in all, and with all our respect for the principle of local self-government, we find ourselves driven reluctantly towards the conclusion that the detection of adulteration must be made a State affair. We are fully alive to the dangers of centralisation, and are by no means anxious to commit too much power to a London bureau, but there are some duties for which a local board is ill-adapted. The suppression of factory nuisances is one of these duties, and the experience of eight years seems to show that the suppression of adulteration is another. A local board commonly includes some tradesmen, and however honest the tradesman may be, he has naturally towards his own class a merciful bias, which is apt to obscure his judgment. He has moreover an instinct for economy, which, though valuable in the main, frequently degenerates into parsimony in matters of the highest general importance. It is at any rate evident that by some means or other a general and systematic enforcement of the Acts of Parliament must be effected.

WITH all the oratory of which he is so perfect a master, Sir JAMES PAGET delivered a striking and scientific address on the occasion of his Royal Highness the Prince of WALES'S first visit to the International Health Exhibition; and no one who had the good fortune to hear or who has read this address can fail to have been impressed with its vividness and power. The obvious distinction which was so lucidly drawn between the healthy man who "dies of old age, with a timely, uniform, and painless decay of every part," after an idle, comfortable, and long life spent in self-enjoyment, and the pattern healthy man who lives long and vigorously, has somehow exercised us not a little. But admitting, as it seems necessary to do, that such differences can and do actually exist, we believe that a kind of explanation by analogy may be afforded in contemplating some widely removed members of the animal creation. Those vast collective masses of jelly-fish which zoologists class among the Hydroidea, or an equally large collection of Polyzoa, may be likened unto a healthy nation composed of units of idle, comfortable, long-living men, of comparatively little use to one another, and therefore to national health. Into the sources and accuracy of the wonderful array of figures which had been collated there is no great need to enter largely here. It will suffice to concur with the main principle which was so truthfully sought to be established. That the total loss per annum to the nation from sickness and death is nothing short of fabulous is a patent fact, made pictorially plain by arithmetic worthy the greatest of our Chancellors of the Exchequer.

A remarkable feature which has always struck us in contemplating Sir JAMES PAGET'S classical speeches is their hopeful character. There is nowhere any withdrawal of the philosopher into his solitary shell of moody pessimism; at all points the orator may be seen to be radiant with confidence for the future. This is a personal characteristic which, in the face of the principles of the survival of the fittest, evolution and dissolution, is worthy of special remembrance. There must always be the "inevitable residue" of waste in national health from sickness and death; but that this unavoidable loss should be reduced to its minimum is one of the aims at which Sir JAMES'S appeals were directed, and with excellent reason, as a paper lately read before the Statistical Society by Dr. LONGSTAFF shows. This paper pointed out the tendency towards a more healthful state of affairs as indicated by the low death-rate which has prevailed in this country during the last eight years. Mr. NOEL HUMPHREYS also showed that if the English death-rate should continue at the low average of the five years 1876–1880, the mean duration of male life in this country would be increased by two years, and that of female life by no less than 3·4 years, as compared with the English life table. As Sir JAMES says: "Anyone who has studied the sources of disease during the last thirty years can tell how and where it has been diminished. There is less from intemperance, less from immorality; we have better, cheaper, and more various food; far more and cheaper clothing; far more and healthier recreations. We have on the whole better houses and better drains, better water and air, and better ways of using them. The care and skill with which the sick are treated in hospitals, infirmaries, and even in private houses, are far greater than they were; the improvement and extension of nursing are more than can be described; the care which the rich bestow on the poor, whom they visit in their own homes, is every day saving health and life; and even more effectual than any of these is the work done by the medical officers of health and all the sanitary authorities now active and influential in every part of the kingdom." Let us freely admit that all this has been good work, but we cannot shut our eyes to the fact that it might be—nay, that it must become—better. If there was one passage more than another where Sir JAMES reached the very altitude of eloquence, it was when he rang out with great inspiration the sentence: "We want more ambition for health—a personal ambition for renown in health as keen as is that for bravery or for beauty, or for success in our athletic games and field sports."

A CASE of some interest was heard in the Crewe County Court on the 9th inst. Mr. C. F. Sutton, surgeon, of Homes Chapel, sued Mr. Young, of Middlewich, for the recovery of a debt of £74 16*s.* for professional services to his wife and child. The plaintiff attended Mrs. Young in her confinement, which was of a nature to require the aid of chloroform, and recovery from which appears to have been tedious and to have necessitated frequent visits, the distance from the plaintiff's house being five miles. The child was attacked with convulsions, and had also to be treated. Mr. Sutton stated his charges were based on the "Shropshire tariff." The hearing of the case occupied considerable time, and after a fair and impartial summing up by the judge, the jury finally returned a verdict for the plaintiff for £62 2*s.*

THE Canal Boats Act Amendment Bill, brought in by Mr. Burt at the instance of Mr. George Smith, is to be referred to a Select Committee, presided over by Mr. W. E. Forster.

Annotations.

"Ne quid nimis."

THE COUNCIL ELECTION AT THE COLLEGE OF SURGEONS.

THE chief interest which attaches to the election of members of Council this year is that which concerns the choice of the particular candidates who shall be selected to fill the five vacant seats. Of the nine candidates no less than seven have already expressed, more or less explicitly, their general approval of the resolutions adopted at the general meeting of Fellows and Members held on March 24th, and reaffirmed at the inaugural meeting of the Association of Fellows held last week. Only Mr. Thomas Smith and Mr. Durham have, we understand, been wholly silent. They are, however, men of tried ability and vigorous judgment; both are experienced in public affairs, and eminently fitted for the duties appertaining to Members of the Council. Of the remaining candidates it may be said that their antecedents warrant the belief that they would within the Council pursue a liberal policy. Mr. Pemberton has special claims both as a distinguished provincial surgeon and as a steadfast and courageous defender of what is right, whether to grant or withhold. Mr. Berkeley Hill, as Secretary to the Medico-Chirurgical Society and in other important public offices, has shown great administrative capacity. Last year Mr. Lawson received significant and encouraging support. Mr. Allingham can establish a double claim upon the Fellows; first, as an eminent surgeon, and, second, as one of the most indefatigable secretaries of the Fellows' annual dinner. Mr. Gant, in addition to his general experience as President of the Medical Society and in other offices, is known to have given special attention to medical education and examination, more especially in their relations to the College. Mr. Barwell and Mr. Cowell are the senior surgeons respectively of the Charing-cross and Westminster Hospitals, to each of which a medical school is attached.

MILK AS A SOURCE OF DISEASE.

A VERY interesting discussion on the agency of milk in the propagation of contagious diseases took place at a conference in connexion with the Health Exhibition on June 12th. It is true nothing new was added to the store of facts already in the possession of the profession as regards the natural history of milk infection; but the highly suggestive paper read by Dr. Thursfield drew attention once more to the practical application of our knowledge of the subject. Proposals similar to those now advocated have been made in these columns. The time has passed for the question of germ-genesis and propagation to be considered as matter fitting only for the diversion of scientists. The public at large have an interest at stake, but they can only be brought to estimate its extent by becoming educated up to the standard of understanding how and by what means they can be materially benefited. Unfortunately they look on past experience with an indifferent eye, and close their ears to what seem to them but pessimist speculations. It then becomes the duty of the executive authority to frame such rules and regulations as will protect the ignorant from the natural consequences of their folly and put a check on the reckless conduct of the mercenary. There can be no shadow of doubt that the contagia of typhoid and scarlet fevers are disseminated by milk, which is held to be "specially calculated to act as a cultivator of germs." The objection that the ordinary temperature is not conducive to the multiplication of pathogenous organisms goes for little, for at most it only points to arrested activity. The *rigor frigoris* of bacterium termo, for example, is 5° C.; but this only renders it immobile, it does not kill the parasite. The other extreme, heat, offers a readier and withal a more efficient method of destroying the living particles of specific fevers. Though boiled milk is less palatable than unboiled, it enjoys a much greater immunity from the chances of conveying disease. With regard to preventive measures, we again insist on the necessity of making it a penal offence to allow milk which is known to be liable in any way to contamination, either with the poison of human or bovine disease, being sold to the unwary or careless purchaser. A general supervision is required both where the milk is produced and where retailed.

THE HISTORY OF VACCINATION.

THE question of the arrest and eradication of small-pox has been the subject of considerable attention in the State of Louisiana, U.S.A, and this not only because that State contains an exceptionally large proportion of negro population, who by reason of race are especially liable to the ravages of small-pox, but because, owing to ignorance, prejudice, and otherwise, bitter opposition has arisen in the ranks both of the white and coloured races against vaccination, either on account of objection to all compulsory legislation, or by reason of a fear that other diseases of man or of animals might be communicated at the same time as vaccinia. Under these circumstances Dr. Joseph Jones, President of the Board of Health for the State of Louisiana, made an extended investigation into the whole history of vaccination, and having, after diligent search, procured copies of all the more important works relating to the subject, he has, with a view of meeting the demand for more precise information in the matter, edited a volume which is of a most interesting character. Perhaps its main interest lies in the fact that it reproduces a series of works which are now, owing to their rarity, all but inaccessible. Thus, Jenner's original work on Variolæ Vaccinia, published in 1798, the "Further Observations" on the same subject issued by the same author in 1880, and his "Continuation of Facts and Observations relative to the Cow-pox," are all reproduced, together with excellent copies of the original plates. Then follow a copy of Dr. Pearson's work "Concerning the History of Cow-pox," published in 1798; Dr. Woodville's work of 1799, an account of Willan's experiments in 1799 and 1800, the report on Vaccination issued by the Royal College of Physicians in 1807, and many other important papers. Among the more recent papers are extracts from the essays and works of Simon, Seaton, Ballard, and others, the whole being illustrated by a series of coloured plates, tables, &c. For this part of the work alone great credit is due to Dr. Jones. The labour involved in the compilation has evidently been very great; it has necessitated visits to the libraries and bookstores of Paris, London, Edinburgh, Oxford, and other places; but it now places in one volume a complete account of the history of Jenner's remarkable discovery in the words of the discoverer himself, and also a compendious summary of the more important works issued since 1798 on the same subject. Dr. Jones is, however, not content to remain a compiler alone; he occupies some 150 pages of the report himself in an article on "Spurious Vaccination." This part of the volume deals with certain abnormal phenomena which were noted by the author as accompanying and following vaccination in the Confederate Army during the Civil War; it includes an account of all the supposed inoculations of syphilis which have occurred; and it quotes largely from authors who have dealt with this subject. The possibility of inoculating such human diseases as tubercle, and also the diseases of animals, in connexion with the operation of vaccination is fully discussed; and, finally, Dr. Jones sums up the opinions at which he has arrived, and which are to the effect that

vaccination is, and always has been since the days of Jenner, the great preventive of small-pox; that the practice of it has in no way impaired the vigour and strength of the human race, but that, on the contrary, it has vastly added to the sum of human life, happiness, and health; and that even admitting the possibility of inoculating other diseases during the operation of vaccination, the adoption of reasonable precautions on the part of the vaccinator would render such a result almost impossible. Dr. Jones's work is now merely an official report; we hope it will be republished in a form which will enable all interested in the subject to procure it.

BOURNEMOUTH SANITARY HOSPITAL.

FROM the plans and specifications which have been submitted to us, it is evident that great care and attention have been bestowed by the Bournemouth Commissioners on the preliminary steps in connexion with the erection of a hospital for infectious diseases. The site appears ample both for the present purposes and also for such extensions as may hereafter become necessary. A zone of forty feet has been preserved inside the boundary of the site, and on this it is evident that no hospital buildings will be allowed. The administrative building, which is of a size to suit the needs of the hospital when further extended, stands near the entrance; doubtless with a view to the control and supervision of all visitors and other persons when entering on the premises. In the first instance, only one pavilion is to be erected, and the Commissioners have wisely decided that this shall be so arranged as to provide for nearly all possible emergencies. With this object in view they have evidently to a great extent imitated the excellent isolation building at the London Fever Hospital. Thus, the pavilion is divided into a series of six rooms, each of which has a separate entrance from the outer air under one or other of the covered verandahs, one of which is to the front and the other to the rear of the building. The one to the front is so arranged that the patients' beds can be wheeled out on to it; the one at the rear is provided with all the necessary offices. The two end ward rooms each contain three beds, the other four contain two beds each, but when the pavilion is in use two of the smaller rooms are so arranged as to serve the purposes of such nurses as will be on duty. By this arrangement of ward rooms more than one infectious disease can, without tangible risk, be received at the same time into the same pavilion; isolation rooms will be in readiness for doubtful cases; and that which is so necessary in the case of a town like Bournemouth—namely, the possibility of securing efficient isolation and at the same time of getting the luxury of private apartments—will be fully met. We hope the hospital will soon be built, for it bids fair to be the type of that which is excellent for the purposes of the efficient isolation of the infectious sick.

ALCOHOL IN THE ORGANISM.

THE destiny of alcohol in the living organism has again been the subject of discussion at the Académie de Médecine. The difficulties which surround the question having been alluded to, M. Béchamp gave some examples of them. Normal urine, in which the presence of alcohol is difficult to verify, nevertheless gives marked, indications, some days after being passed, whether it has become alkaline or remained acid. Béchamp found 1·5 gr. of alcohol in six litres of urine thus altered; at the same time much acetic and benzoic acids were formed. The liver may undergo fermentation, and thus give rise to alcohol and acetic acid; glucose and glycogen disappearing during the process of conversion. Muscle which has not yet undergone putrefaction also furnishes alcohol and acetic acid, with other volatile acids. The egg of an ostrich, of which the white and yellow have been mixed by vigorous succussion ferments with the production of alcohol and acetic acid; as much as 2 cc. of absolute alcohol may thus be obtained. Milk spontaneously coagulated contains at the moment of curdling alcohol and acetic acid. Blighted sorb apples and medlars yield alcohol. All these statements were made on the strength of Béchamp's own investigations. Briefly put, it may be said that all organic matter left to itself ferments, and evolves alcohol. Guérin had spoken of the possible elimination of alcohol by the digestive tract, but here also it is necessary to take into account fermentations which may have evolved it. Fresh embarrassments are caused by the question as to whether the organism does not normally manufacture alcohol. Béchamp believes that the tissues naturally produce this agent, and gives his reasons, of which the following are some:—Alcohol exists in germinating barley; the normal urine of teetotallers contains alcohol; various forms of milk also possess it immediately on being drawn; sheep's liver and freshly removed brain-matter yield it when submitted to distillation. Béchamp is of opinion that alcohol may own other sources than the fermentation of sugar by the yeast plant, and, further, that alcohol may be destroyed physiologically by other means than by actual combustion.

BURIAL: WHY AND HOW?

IN a recent article we stated our reasons for preferring earth to fire as the means of dissolution of the dead body. They were briefly these: that burning is unnecessary, because burial can do the same work as safely, as effectually, and with less offence to custom, and because for various reasons it is not possible that it should ever be entirely superseded, or even probable that it should cease to prevail over cremation. It has been said that cremation would nullify the infectiousness of disease after death. But the power of a body deeply and suitably buried to propagate disease is practically *nil*. It is not after interment, but during the period immediately preceding it, that this danger is to be dreaded. Neither cremation nor burial can supply any safeguard at such a time. The evil, moreover, is one to which the poor man, rather than the rich, is liable. It arises from the fault of scanty accommodation, and has more properly to do with the question of the housing of the poor than with that of the disposal of the dead. The difficulty might be well met by acting on the suggestion of Sir James McGarel Hogg, that one room in any given tenement should be set apart for the reception of the dead up to the time of burial. But if we assert that the practice of inhumation is desirable, we do not therefore imply that all existing means to this end are equally so. Nothing can be more objectionable on sanitary grounds than some of these, as, for instance, the use of vaults and preservative coffins, overcrowding in graves, the selection of damp retentive soils and the like. Decency alone should regulate the strength of the enclosing shell. Wicker has of late years been strongly recommended as a material for coffins, and it is admirable for this purpose on account of its lightness and porosity; but there are certain obvious objections to its use in all cases. Canvas strengthened where necessary with some stouter material would be equally suitable. It is of no less importance that a body should be buried within as short a time as is compatible with certification beyond a doubt of the fact of death. To obviate injury from graveyard miasma care should be taken in every case to bury deeply, say, at a depth of from six to eight feet, and to inter no second body in the grave of a first until it shall have become tenantless through natural decay. Three years at least are required to attain this object. Under such conditions as the above, supplemented by the use of educated judgment in the laying out of sites for burial, no system can better serve the public good than that which makes the earth our last resting-place.

UNIVERSITY COLLEGE HOSPITAL.

A MEETING in aid of the funds of this hospital was held in the Egyptian Hall of the Mansion House on Monday afternoon last. The Lord Mayor, who presided, in opening the proceedings remarked that the University College Hospital had a very strong general claim upon the public, for the reason that the locality in which it was situated did not contain a number of wealthy people upon whom it had local claims to the extent other hospitals had; he also pointed out that being in the immediate vicinity of three great railway termini—the London and North-Western, the Midland, and the Great Northern—many accidents occurring on any of those lines within a certain distance from London were sent to this hospital. The circular convening the meeting stated that this being the fiftieth or jubilee year of the existence of the hospital, the committee were anxious to celebrate the event by clearing off the debt of over £8000, with which their work was at present hampered, and by raising a large sum for permanent investment as a jubilee endowment and building fund. Independently, however, of the above large debt, another ground of appeal was the urgent necessity for providing residential accommodation contiguous to the hospital for the nursing staff, consisting of between sixty and seventy sisters and nurses. The present financial position of the hospital was as follows: Annual necessary cost of maintenance, £19,000; reliable income from all sources, £6500; annual deficiency to be provided for, £12,500. This deficiency during the last few years had been only partially covered by donations and legacies, and the unfortunate result had been the forced sale of stock and the consequent diminution of dividends. Resolutions were carried urging the value of the hospital and its need of funds, and at the close of the proceedings it was announced that contributions which had been received amounted to nearly £3000, and that a gentleman had given £1000, the interest of which was to be applied to sending children to convalescent homes. It was also stated that under the will of the late Dr. Alexander Tweedie the hospital would benefit to the extent of £1000. We cannot help expressing a doubt as to the judiciousness of holding this meeting on behalf of an individual hospital on the day immediately succeeding Hospital Sunday.

SCHOOL HYGIENE.

WE are glad to learn that the proposal to form a Society of the Medical Officers of Schools, to which we lately called attention, has been carried into effect. The objects of the Association are: (1) mutual assistance in promoting school hygiene; and (2) the holding of meetings for the consideration of all subjects connected with the special work of medical officers of schools. The Council have already begun the work of collecting information on a subject of great importance with reference to the introduction of scarlet fever, measles, and German measles into schools, and the measures usually adopted to prevent their spread in them, and thence into the families of the pupils. For this purpose they have addressed a series of questions to the medical officers of all the large schools of England as to the length of time which must elapse before a boy having had any of these diseases is allowed to rejoin the school, and the mode of disinfecting his clothing either at home or on his return; the steps taken for the isolation of cases occurring at school during term, both as regards the boy and the sick room attendants; the disinfection of clothing and bedding; the return of the boy to his family or to some place of quarantine before rejoining the school; and the system of requiring a certificate that boys during their holidays have not been exposed to the contagion of any of these diseases. If these questions are carefully answered by any number of the medical officers, a great amount of information will be obtained, which cannot fail to prove useful in settling some of the difficult, and at present doubtful, points with regard to the spread and the prevention of these prevalent diseases. This is a direction in which the labours of such an Association may be turned to valuable account. We observe with satisfaction that the members are not to be overtaxed with meetings, at which time is too often lost in unprofitable talk, as we feel strongly that much more good can be done by the collection and arrangement of accurate information on matters connected with the maintenance of health. One of the subjects which will doubtless soon receive due attention will be the question of the effects of overpressure in school work upon the health and intellect of the pupils. In the consideration of these and all other points bearing upon school hygiene, we trust the Association will bear in mind the necessity of being practical in their recommendations, and of avoiding such as are either too complicated or too expensive to be brought into operation or to have a fair chance of being adopted by the responsible school authorities. We need hardly say that we heartily wish the Association every success in the work they have undertaken.

VIVISECTION.

THE Parliamentary report of the inspector, Mr. George Busk, dealing with the returns relating to experiments on living animals, must be regarded as very satisfactory from a humanitarian point of view. The statement that the amount of direct or indirect suffering from the performance of physiological experiments during the past year was wholly insignificant, and limited to about fourteen or fifteen animals, ought to satisfy the requirements of the anti-vivisectionists. The number of persons who held licences during any part of the year 1883 was 44, and of these 12 licensees performed no experiments. The total number of experiments of all kinds made during the year was about 535. Of these, 256 were done under the restrictions of the licence alone; 55 under certificates doing away with the use of anæsthetics; 122 under certificates dispensing with the obligation to kill the animal before recovering from anæsthesia; and 102 were experiments on cats, dogs, horses, mules, and asses. Of the 55 series the experiments consisted in simple inoculation with, or in the hypodermic injection of, morbid matter; the pain inflicted in the cases in which any result ensued would be no more than that which accompanies ordinary vaccination and its consequences. Of the 122 series, 114 also consisted principally in inoculation with various septic matters or morbific organisms, for the greater part connected with an important inquiry into the nature of tubercular affections.

HOME LESSONS.

THE serious injury which may be done to the growing brain of a child by allotting it more work than it can easily and cheerfully get through may not admit of a mathematical calculation, or even of coarse demonstration. But these are no arguments. Some individuals are so blunt-sensed from innate defects or wilful opinion that the well-defined, though it may not be gross, changes in mental life pass unnoticed until, as sometimes happens, a stage is reached which no longer begs for a name. We believe that such diseases as epilepsy and chorea have been induced by excessive mental work in the young, though, unfortunately, there is considerable difficulty in absolutely proving the grounds for the belief; but such objections stand in the way of all like assertions in medicine. Every student who has done more than his share of reading at night-time knows what it is to go to bed only to rehearse the sentences which have most occupied his attention just before his retirement. What is

the state of the brain in such circumstances? There is no question that it is allied to the condition which has been termed, aptly enough, "irritable weakness." Unusual mental efforts in the evening then—home lessons for the very young—are most likely to set up this condition of unstable mental action, which is assuredly the precursor of more serious mischief. A case from Bradford, involving the power of School Boards to enforce the learning of lessons at home, recently came before Justices Mathew and Day in the Queen's Bench Division. Their lordships were of opinion that technically an assault had been committed by the schoolmaster for keeping the child in school as a punishment for not having learned a home lesson. The School Board has no power to enforce the learning of home lessons, and we are glad that such is the case.

THE VOLUNTEER MEDICAL ASSOCIATION.

THE annual dinner of volunteer surgeons in connexion with this Association was held at the Holborn Restaurant on the 18th inst. SIR GUYER HUNTER ably occupied the chair, and amongst the guests were Dr. Crawford, Director General of the Army Medical Department, Colonel the Hon. Paul Methuen, C.B., and others. The chairman in his speech pointed out the advance made in the work of the Association during the year, more especially as regards the formation of the Volunteer Hospital Corps. He stated that the students of seven hospitals in London are being drilled, and are to receive their uniforms this week; that the students in Edinburgh have commenced the work; and that this week the lay public in London are to commence drill. The Director-General spoke as to the present want of organisation in the medical department of the volunteer force, and stated that for all practical purposes such a department could scarcely be said to exist. He feared that the post of surgeon to a volunteer regiment was considered usually as a sinecure, and that the medical organisation of the volunteers was totally unworthy of such a grand force. Colonel Methuen promised to aid the movement of the formation of the Volunteer Hospital Corps in every way in his power, and insisted on the essential importance of medical organisation in the volunteer force if it were intended that it should become a useful body.

ROTUNDA HOSPITAL.

AN excellent report of the Rotunda Hospital, for the year ending Nov. 3rd, 1883, has been read by the Master of the Hospital, Dr. Macan, before the Obstetrical Section of the Academy of Medicine in Ireland. The burden of the report is the part played by antiseptics in the treatment of the puerperal state. An antiseptic solution of carbolic acid (1 in 40), or corrosive sublimate (1 in 2000), is employed in every possible direction of infection. The Master rightly draws a distinction between cases of fever resulting from auto-infection and those from hetero-infection. Lucid descriptions of the two styles of danger are incorporated in the report. To particularise the number of precautions taken for the prevention of infection we may state that no one is allowed to make a vaginal examination without having carefully washed his hands and thoroughly used the nail-brush, with the free employment of the antiseptic solution. No student working in the dissection-room is allowed to enter the lying-in wards. Every instrument used is carefully cleansed with the antiseptic fluid. Palpation of the abdomen is more earnestly taught in order to lessen as much as possible the frequency of vaginal examination during the progress of labour. With a view to tracing the source of infection, all physicians, students, and nurses who have to do with a patient are requested to inscribe their names on an allotted space. As soon as the child is born, the woman is made to lie slightly on the back, to prevent the entrance of air into the genital cavities, and there is an absolute rule against touching the woman's genitals with the fingers after delivery, except when necessary. Before stitching up a ruptured perineum the vagina is injected with carbolic solution, and should it be found necessary to introduce the hand, the uterus is always washed out with a similar solution. In like manner the vagina is irrigated, and the external genitals are carefully washed before every operation; the uterus is syringed out afterwards, and recently a pessary containing one drachm and a half of iodoform has been then passed to the fundus and left there. All vaginal or uterine tubes are made of glass, and a separate tube is assigned for each bed. Syphon syringes have been replaced by irrigators. Silver instruments alone are used. The result of these measures is thus stated:—The mortality from all causes has been only 6 in 1090, or ·55 per cent. Matthews Duncan and McClintock give the puerperal mortality of private practice as not less than 1 in 120. All the 6 deaths followed more or less complicated labours. Not one of the 64 forceps cases died.

A DOCTOR CONVICTED OF MANSLAUGHTER.

AT the Criminal Sessions of the Supreme Court, Dunedin, New Zealand, before Mr. Justice Williams, Lloyd Davenport Parry, surgeon, was indicted for the manslaughter of Sarah Ann Cuthbertson, on March 28th, 1884. As given in evidence it transpired that the deceased, who was far advanced in her ninth pregnancy, was attended in her confinement by the accused, and further, one of the witnesses for the prosecution who was present when the doctor made his first examination stated that the latter said it was a case of cross-presentation, and that rupture had taken place. Recognising the desperate nature of the case, Mr. Parry proceeded to administer chloroform, with a view to the operation of turning. He seems, however, to have failed to rectify the position of the child, and consequently to effect delivery. The accident happened at eight o'clock in the morning and the woman died from hæmorrhage at one in the afternoon. Several witnesses for the Crown testified that Mr. Parry seemed in a drowsy state the whole time he was in the house, but they all agreed that he was not intoxicated. The autopsy was conducted by two local medical men, who at the inquest and trial gave it as their opinion that the cause of rupture was external violence. An explanation of the doctor's drowsiness was forthcoming in his own statement that he had been up the night before with a difficult case; and in the absence of rebutting evidence the judge accepted this as sufficient. Now, we admit it would have been better had Mr. Parry at once sent for assistance on finding himself in the face of such a disaster, and we cannot acquit him of all blame for leaving the woman undelivered; but at the same time we urge, as an extenuating circumstance, the appalling difficulty he had to contend with. The conviction, however, seemed to obtain mainly on the evidence of the two medical men. What was the value of that evidence? We unhesitatingly say that it was in direct opposition to the teachings of experience, and cruelly damnatory of the accused. Here was a woman in her ninth confinement—her eighth was premature—certified as having died from the effects of external violence, having been attended by a doctor who, from the first, diagnosed rupture of the uterus, and who did not employ instruments. It is well known that multiparæ are more liable to laceration and rupture of the womb than primiparæ, and that the danger increases with each successive pregnancy. According to Churchill, only nine out of seventy-five cases are those of women bearing their first child. Then, too, the fact of the deceased being delivered of her eighth child prematurely may not improperly be taken as presumptive evidence of

some disorder of nutrition and structure of the uterine walls. Again, rupture is generally more common in the early period of labour, as in the present instance. Dr. Meadows, in his work on Midwifery, writes: "It may happen without any carelessness or violence in the operation of turning." We could advance other arguments, but these are ample to refute the contention of the Crown witnesses. It was with a certain amount of surprise that we found the judge did not stop the case immediately upon the conclusion of the evidence of the woman that Mr. Parry asserted there was rupture before he tried to deliver; and with still more that, on letting it go to the jury, he did not rule that if they believed this evidence they must acquit the accused. The grounds for our comments are the reports in the local press, and it is possible we are not fully instructed in the matter, but as far as our information goes we subscribe to the resolutions of the Otago Medical Association—viz., "The medical evidence did not represent the opinion of the profession," and "the verdict was against the weight of evidence." We trust that by this time Mr. Parry has regained his liberty, and that ultimately the conviction will be quashed.

SCARLATINAL "SCURF" SCATTERED BY MACHINERY.

ATTENTION has been directed to the monstrous wickedness or folly, or both, of a mother who, finding her children suffering a good deal from "scurf" after scarlatina, took them to a West-end hairdresser's and let them have "a good brush with the machine." It would be difficult to imagine any better mode of doing mischief on a large scale. Of course, under such conditions, the infection of scarlet fever may—and must—be spread in all directions. We think there is good reason to believe that not only scarlet fever but other maladies, of which many have "scurfiness" of the scalp as a consequence, are scattered broadcast by the hairdressers. There is not enough care taken in respect to this matter of hair-brushing and hair-brushes at hairdressers', whether they use the machine or the hand-brush, at schools, and even at clubs. More than mere "dirt" is communicable in this way. We do not speak of parasites, but of diseases which cause sweating of the scalp and "dandriff."

SUDDEN DEATHS FROM HEART DISEASE.

THE melancholy death of Mr. Bromley Davenport, M.P., directs attention afresh to the fact that it is always unwise for persons who suffer from heart disease to give way to excessive excitement of any kind, but particularly to that form of self-perturbation which consists in strong "feeling" of any kind, whether pleasurable or painful in itself. It is noteworthy that heart-cripples—as such persons may be called—will go through a good deal of hard and exciting work, either of brain or muscle or both, with impunity, if only they are not thereby subjected to great excitement. There may even be what is called "emotional" disturbance without injury, because the emotional functions, or parts of functions, do not necessarily involve any great amount of central commotion; the inhibitory nerve centres are generally involved in the storm. When, however, there is strong feeling, either as a purely cerebral phenomenon or in association with muscular activity, there is danger, because the inhibitory nerves are almost certain to be affected, being in some cases paralysed as it were, in others unduly excited. If the first mentioned effect is exerted on the vagus, the heart is suddenly deprived of its controlling influence, and, acting tumultuously, becomes rapidly exhausted or mechanically embarrassed by the defects of its valvular apparatus, with the result of death by asphyxia, properly so called, or by apnœa; the respiratory centre, if there be one, being involved in the panic or outburst, or becoming disturbed as a result of interference in the heart's functions. It is important that this difference between the effects of strong "feeling" and mere "emotion" should be recognised, because, observing the immunity which commonly attends one class of disturbances, sufferers from heart disease are too much inclined to disregard the real danger which accrues to excitation of the other class. During the last few months there have been several notable instances of disastrous consequences ensuing from the failure to recognise the essential difference we have tried to point out.

"THE GROWTH OF LUNACY."

UNDER this, or some similar, heading we note a perpetually recurring series of more or less mournful announcements that lunacy *is* increasing. When will reporters and statisticians begin to understand that the number of an asylum-population is not the number of the insane, and that it is still less *proportionally* indicative of the growth of insanity, in any district? Suppose for one instant that the police of a locality had their attention specially directed to the prevalence of habits of drunkenness, and they began to arrest all persons who appeared to be inebriated, putting them in prison and keeping them there until they proved themselves to be not only sober but temperate. What sort of nominal result should we get? First, obviously, there would be an annually increasing vigilance or expertness on the part of the constables employed, so that more persons would be arrested in successive years. Second, in process of time an increasing proportion of the general population would, from mere lapse of time, be in a position to commit blunders and be "taken up." Third, the number of persons in prison would increase by *accumulation* because they would not be discharged as rapidly as they were admitted. All these conditions come into play in the matter of "lunacy"; and the last point mentioned—namely, accumulation—necessarily accounts for a very large proportion of the so-called increase.

SMALL-POX HOSPITAL FOR CALCUTTA.

THE report upon the hospital accommodation in Calcutta for European patients suffering from small-pox, which has been drawn up by Surgeon-General Payne in accordance with the instructions of the Lieutenant-Governor, fully bears out the statements which were made respecting its inadequate amount and most unsatisfactory quality (see THE LANCET, May 24th). It appears, however, from Dr. Payne's report to have been a temporary, and, so far as official recognition was concerned, an unauthorised arrangement, in which the deficiencies of equipment were generally supplemented by the patients and their friends. "Past deficiencies then have amounted to this: there has been a want of provision for persons of the upper classes, and of some necessary accessories to the provision for poor people." To remedy this very unsatisfactory state of matters Dr. Payne suggests that the Shumbu Nath Pundit ward, in the compound of the General Hospital, should be set apart for paying patients, European and Eurasian, such additions and alterations being made in it as may be required for the suitable accommodation and comfort of the class for whom it is intended; that the building now used at Sealdah for small-pox patients be enclosed by a wall with sufficient ground space, and five rooms on the upper floor be partitioned off for severe confluent cases requiring segregation, adequate provision being made for ventilation, and separate bath-rooms, latrines, and cook-houses being built. This hospital, we presume, is intended for non-paying patients. It appears there has been no want of accommodation for natives, which has consisted of a permanent building and of sheds; the latter, however, are in a rotten state, and it is proposed that they should be taken down and new ones erected. These recommendations have

been approved by the Lieutenant-Governor, and authority has been given to the Public Works Department to undertake the necessary works without delay. But, while giving his sanction to these arrangements as suitable for present requirements, Mr. Rivers Thompson expresses a strong opinion that a special hospital for the treatment of infectious diseases among both European and natives is an institution which should be provided in Calcutta; and he has instructed the Surgeon-General to prepare a report upon the "locality, plan, design, and cost of the proposed hospital, the general principles on which it should be conducted; whether aid may be expected from the public or from any local bodies; and, if so, the best mode of utilising it"—with a view to including the necessary charges in the next year's estimates. It is very satisfactory to find such prompt and enlightened attention on the part of the Lieutenant-Governor to so important a subject, and that the preparation of the scheme for the increased and improved accommodation of cases of infectious diseases has been entrusted to so able and efficient an officer as the Surgeon-General.

DISUSED BURIAL-GROUNDS AS PUBLIC GARDENS.

THE Metropolitan Public Garden and Playground Association deserves well for its efforts to add to the pleasures and improve the stamina of city children. The conversion of old and disused burial-grounds into open spaces for recreation, which is one of its leading principles, has much that can be said in its favour and is open to no valid objection. It implies no neglect or desecration of those whose remains formerly rested there, inasmuch as their elements have years ago become part of the dust out of which they came. Their very memorials in many cases have perished, as they must at length, crumbled away by the hand of Time. Neither does hygiene require that these spots should continue to be the neglected abode of rank grass and weeds alone. Let it be granted that urban burial-grounds were a mistake of a former generation; they have wrought their evil doubtless, and have ceased to be offensive long before now. The period which has intervened since the abolition of intramural graveyards is sufficient to have purified by disuse the most unwholesome of them.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

IT is satisfactory to be able to announce that, in accordance with the suggestion made in our columns a few weeks ago, Her Majesty has graciously given her special sanction to the proposal that the new building now being erected should be dedicated as a memorial to the late Prince Leopold, Duke of Albany. A meeting will take place at Willis's Rooms on the 14th of July next, the Earl of Shaftesbury in the chair, when the Queen's communication will be read and resolutions will be proposed.

SPINAL CONCUSSION.

A CASE of "commotion" of the spinal cord followed by sclerosis of the lateral columns and degeneration of the cells of the grey matter was read by M. Dumenil at a recent meeting of the Académie de Médecine. The patient was a man aged sixty who fell on to his head from a first floor landing and remained unconscious for an hour, full recovery of motion and sensation not taking place till some days later. The author distinguished two periods in the progress of the case. A first stage, lasting forty-six days, was characterised by phenomena consecutive to "commotion" of the cord. A second period, lasting 103 days and ending in death, was noteworthy from the presence of signs believed to be due to sclerosis of the lateral columns. In his remarks M. Dumenil said it was rare to find such concussions without local contusions. He was of opinion that such a state as concussion of the cord does exist, and may be the starting point of inflammatory lesions which may take on the form of systemic lesions. From the report in the *France Médicale* we do not gather whether a post-mortem examination was made in this instance, though the full title would lead one to think that such had been the case.

MANCHESTER AND SALFORD SANITARY ASSOCIATION.

ONE of the most prominent of the local Societies which have been established in different parts of the kingdom for the promotion of public health is the Manchester and Salford Sanitary Association, and though some of the work which it originally set itself to do is now performed by the municipal sanitary officers, yet there still remains much that such a body alone can perform with a prospect of real success. During the winter of 1883–84 they provided a series of excellent popular lectures on subjects which may be regarded as belonging to sanitary biology; they have urged upon the Manchester Corporation the need for amending and enlarging the seriously defective building bye-laws in force; they have assisted in the agitation which has led to the proper inspection of bakehouses by sanitary officers, and they have thus incidentally favoured the establishment of machine-bread factories; they have appointed a special committee of investigation in connexion with Dr. Ballard's inquiry as to infantile diarrhœa; and the ladies' branch of the visiting subcommittee have by their periodic visits into certain localities, in the company of mission women and others, succeeded in bringing under the notice of the sanitary authorities the existence of nuisances injurious to health, which but for their action would probably long have remained unobserved. The Association has also taken active steps to promote many measures which are calculated in one way or another to promote the physical and moral welfare of the poorer parts of the population. The licensing of midwives, the need for control in the sale of patent medicines, the supervision of the sale of milk, and the special urgency for increased open spaces as playgrounds and for the purposes of recreation have been questions in which they have taken a prominent part by means of petitions to Parliament and to the municipalities concerned. Such an organisation is well worthy of support, and we are glad to observe from the separate funds connected with its many branches, such as those which relate to day nurseries, smoke abatement, instruction of mission women, &c., that it is locally regarded as engaged in a work of the highest importance.

POSTAL MICROSCOPICAL SOCIETY.

IT is proposed to form a new section of the Postal Microscopical Society, to be devoted to the circulation of specimens of purely medical interest. Means will be taken to furnish with the specimens sent round not only an anatomical description, but also an account of the clinical history of the case from which the specimen is obtained. To accomplish these objects it is proposed that every member of the new section of the Society shall send to the hon. sec., for circulation, six slides (or any multiple of six) with full descriptive notes thereon, to be written in the book or books provided for that purpose, and each member receiving the same will be asked to add all that he can in further elucidation of the specimens. Boxes containing twelve slides will be circulated at regular dates and in such a manner that each member should receive one every fortnight. That each series may circulate a whole year it is necessary that fifty members be enrolled. Members of the medical section will be at liberty

to join the general section on paying half the annual subscription extra. A copy of the *Journal of Microscopy* is presented to every member quarterly, as published. All communications on matters connected with the Society should be addressed to Mr. Alfred Allen, 1, Cambridge-place, Bath.

GORDON FROM A MEDICAL POINT OF VIEW.

GENERAL GORDON is indeed, as the Premier says, a distinguished personality. His life is as great a mystery as his character. His physical endurance in the desert would be difficult to understand in a strong man; but in a man with angina pectoris, and with a horror of meals, it is simply a kind of miracle. As far back as November 15th, 1878, and in that very Khartoum on which the eyes of all Christian nations are turned, he writes: "There are not nine Europeans in the Soudan, and they vegetate and do not live. Can you conceive what it is never to have any desire to eat? That is my case. I hate the operation.....My angina pectoris has not troubled me lately. According to medical books it is not known what occasions this. It is heart disease, and makes you think you are on the brink of death. A rush of blood takes place to the heart, and you think all is over. I may say I have died suddenly over a hundred times." We can only find encouragement in such facts to go on hoping that against all human and medical probabilities Gordon will again emerge from the Soudan, and long continue to show the world what can be done by men with grave disease, but with faith in their own mission and in God's providence.

OSPITALE MAGGIORE OF MILAN.

FROM a chronological history of this institution, just compiled by Signor P. Canetta, we gather that the foundation stone was laid by Duke Francesco Sforza April 4th, 1456. An entry on the 23rd April, 1632, records that the plague of 1630 proved fatal to all the surgeons of the hospital. On the 31st October, 1707, an order was issued for the supply of human fat and pulverised cranium to the hospital pharmacy. In 1711 the attendants (*inservienti*) were forbidden to perform phlebotomy. It was not until March 31st, 1866, that the institution was lighted with gas.

INTERNATIONAL HEALTH LECTURES.

DR. COBBOLD, F.R.S., will deliver the first of two lectures on the "Parasites which Infest Meat and Food generally," in the Conference Room, International Health Exhibition, next Wednesday, at 5.30 P.M. The special subject introduced will be that of Trichina and Trichinosis, followed by some account of the lung parasites of animals used as food. The second lecture, on the following Wednesday, will deal with hydatids and with the beef-tapeworm and its measle.

LAPAROTOMY FOR VOLVULUS.

THE *Gazzetta degli Ospitali* of the 11th instant reports that Dr. Medini performed laparotomy in the Ospitale Maggiore of Bologna on the 19th April last, for twisting of the intestine (*attorcigliamento dell' intestino*). The operation was quite successful, and the patient (a male, aged sixty-three), may be considered cured. Notwithstanding the manipulation required to disentangle the intestinal coils, and to separate the adhesions between them, the case progressed without serious symptoms.

THE COLLEGE CURATORSHIP.

AT an extraordinary meeting of the Council of the Royal College of Surgeons on Thursday last, Mr. Stewart, of St. Thomas's Hospital, was elected Conservator of the Museum, vice Mr. W. H. Flower, F.R.S.

THE EFFECTS OF HIGH MOUNTAIN AIR ON MAN.

IT is interesting to record the experience of Mr. Graham, narrated in his recent account to the Royal Geographical Society, of his mountaineering in the Himalayas, in which he reached a point 23,700 feet above the sea, 1700 feet higher than any other mountaineer. He says: "Neither in this nor in any other ascent did we feel any inconvenience in breathing other than the ordinary panting inseparable from any muscular exertion. Nausea, bleeding at the nose, temporary loss of sight and hearing, were conspicuous only by their absence, and the only organ perceptibly affected was the heart, whose beatings became very perceptible, quite audible, while the pace was decidedly increased."

SIGMOID COLOTOMY.

MR. JORDAN LLOYD, F.R.C.S., performed this operation last Saturday, at the Queen's Hospital, Birmingham, on a girl, aged sixteen, on whom he had performed proctotomy last January, for acute ulceration of the rectum. The sigmoid flexure was reached through a two-inch incision above and internal to the anterior iliac spine. The empty gut was found close to the wound, to which it was easily sutured, before being opened. Fæces passed through the wound the third day, and the patient has not had a single unfavourable symptom.

THE HIND FUND.

IT is gratifying to find that Mr. Hind's former pupils and friends, generously aided by many members of the profession to whom he was known only by name, but who are ever ready to come to the help of a distressed brother, have succeeded in raising a fund amounting to nearly £600, the greater part of which has been invested in an annuity. Mr. Hind's letter of thanks published in our last week's issue must have been read with satisfaction by those to whom he expresses his gratitude for the practical sympathy extended to him "when no longer able to bear the heat and burden of the day."

"LUNATICS" IN COURTS OF JUSTICE.

IT should only be necessary to point out the exceeding cruelty of exposing lunatics to the annoyance and excitement of being tried or examined in public on charges for which they cannot be convicted. Every now and again we hear of scenes in court which are discreditable to all concerned, and which arise simply from the mischievous practice of treating the insane as if they were sane.

THE SCOTCH AMENDMENTS OF THE BILL.

THE Scotch bodies have kindly offered Mr. Mundella not to oppose any other part of the Bill if he will consent to its evisceration! This is really very condescending on the part of the Scotch authorities, who wish to continue to enjoy a huge share of the work of the medical education of English practitioners without submitting their students to the State test to which all English universities and corporations submit without a murmur. We are profoundly sorry to see the great universities of Scotland enter into such an alliance with a view to harass the Government. If well advised, they will abandon their alliance and join the great bodies of England in accepting conjoint boards. Whether or not, the Government should stand very firmly to its colours, and throw on those who seek to mutilate the Bill the whole responsibility of so unworthy a proceeding. If things have come to this pass, that the conditions of fair play and equality in examinations cannot be secured by the Parlia-

ment of the United Kingdom, we had better confess the fact at once. If Scotland cannot, with all her boasting, construct a conjoint board and find cases for her clinical examinations, she had better cease boasting of her schools.

M. TERRIER showed at a meeting of the Société de Chirurgie an enormous splenic tumour weighing six kilogrammes which he had removed from a woman aged forty. Death followed twenty hours after the operation, apparently from capillary hæmorrhage into the peritoneum. The case had been under observation for two years. There was a slight degree of leucocytosis. The splenic vein was found to be as large as an ordinary vena cava inferior.

A REGULATION is in force at the Hague, by which everyone in whose house an infectious disease exists is bound to hang up on the front door a notice to that effect, and to state the nature of the malady, so that anyone whose business takes him to the house may risk the danger or not as he thinks fit.

PROFESSOR EICHORST of Göttingen has been nominated to succeed Professor Hugenin in the chair of Clinical Medicine at Zurich. Professor Eichorst is well known for his contributions to medical literature, notably his "Handbook of Physical Diagnosis," and "Treatise on Medicine," now in course of publication.

THE presentation of the testimonial to Dr. Joseph Rogers will take place on Tuesday, June 24th, 3 P.M., at the rooms of the Medical Society of London, Chandos-street, Cavendish-square. John A. Shaw Stewart, Esq., has kindly consented to preside on the occasion.

A REWARD of 100,000 dollars is provided for in a Bill recently introduced into the United States Senate, to be given to any person who shall discover the true germ of yellow fever, or any certain way of preventing or materially modifying the spread of the disease.

THE Medical, Pharmaceutical, and kindred Professions and Trades Exhibition to be held at Humphreys' Hall, Knightsbridge, in aid of the funds of University College Hospital, will open on October 1st.

AT the Berlin Polyclinic, courses of lectures, extending over one month, are delivered to classes limited to six entries on all the different specialties.

A CAIRO correspondent states that a naval hospital for sick marines from Suakim is being established at Suez, with the assistance of the Army Medical Department.

DR. WALLER has been appointed Lecturer on Physiology at St. Mary's Hospital Medical School.

PROFESSOR TOLDT of Prague has been appointed to the second Anatomical chair lately founded at Vienna.

DR. WEBER-LIEL of Berlin has been made Professor of Diseases of the Ear at Jena.

IT is stated that the Queen has sent, for the use of the patients in Aberdeen Infirmary, a copy of her book "More Leaves from the Journal of a Life in the Highlands," and also a copy of the "Life and Letters of the Princess Alice."

INDIAN HEALTH STATISTICS.[1]

No. I.

THE report of the Sanitary Commissioner for the year 1882 shows the sickness mortality and invaliding of the European troops in India generally to have been considerably below the average of preceding years. The average strength was 57,269 non-commissioned officers and men, among whom the admissions into hospital were in the proportion of 1445, the deaths in India of 12·07, the mean daily sick of 65·2, and the invalids sent to England of 33·08 per 1000. The death-rate is the lowest recorded of the European force in India, and the admissions and mean daily sick are lower than in any of the five preceding years. On separating the returns for the three presidencies the following results are obtained:—

Average strength.	Ratio per 100 of strength.			
	Admitted into hospital.	Died in India.	Invalids sent to England.	Mean daily sick.
Bengal .. 35,164	1579	13·17	34·96	69·3
Madras .. 11,020	1058	10·25	24·12	57·0
Bombay .. 11,085	1405	10·37	35·85	60·6

This table shows Madras to have been the most healthy and Bengal the most unhealthy of the three presidencies. The death-rate in Bombay was very slightly higher than in Madras; but the invaliding, though considerably lower than in previous years, was greatly in excess of Madras, and was slightly higher than in Bengal. Bombay furnished during the year an average force of 929 for Southern Afghanistan, the returns for which are included in those of the presidency; but the sickness and mortality were lower among them than among the troops serving in Bombay. The excess in the admissions in Bengal and Bombay has been chiefly due to the class of fevers, and especially to those of malarial origin; of the latter, 660 cases were admitted per 1000 of the strength in Bengal, 558 in Bombay, and only 171 in Madras. Enteric fever was the most fatal disease in all the presidencies; the deaths by it were in the proportion of 2·90 per 1000 in Bengal, 2·09 in Madras, and 1·90 in Bombay. The stations at which enteric fever was most prevalent were: in Bengal—Sitapur, Lucknow, Cawnpore, Allahabad, and Meean Meer; in Bombay—Nusserabad, Secunderabad, and Bombay; and in Madras—Bangalore and Bellary. In Bengal the admissions were most numerous from March to September inclusive, except July; in Madras in May, June, October, and November, and in Bombay in August, October, and November. The mortality from enteric fever according to age was, among the men under twenty-five years, 4·32 per 1000, from twenty-five to twenty-nine 1·55, and from thirty to thirty-four years of age 0·78. The influence of length of residence in India upon the death-rate by this disease was also well marked; among men in their first and second years of service it was 4·68 per 1000; from the third to the sixth year, 1·93; and from the seventh to the tenth, 0·34.

Next to enteric fever in point of frequency as a cause of death stands hepatitis in Bengal and Madras, where the ratio was 1·48 and 1·72 per 1000, while in Bombay it amounted only to ·81.

Cholera, which so often proves a source of great mortality among the troops in India, did not prevail to any marked extent during the year, the deaths by it in Bengal having been only 1·28, in Madras ·82, and in Bombay ·63 per 1000 of strength. The stations at which a considerable number of cases occurred were Fyzabad, Lucknow, and Benares, 29 with 20 deaths being returned from the first, 12 with 8 deaths from the second, and 11 with 6 deaths at Benares. Most of the cases were in June and July. In Bombay 6 cases, of which 5 were fatal, occurred in August and September at Nusseerabad; and in the Madras Presidency 8 cases with 5 deaths among troops on the march.

Venereal diseases are a source of great inefficiency among

[1] Nineteenth Annual Report of the Sanitary Commissioner with the Government of India for 1882, with Appendices and Returns. Calcutta, 1883.

the European troops in India; the admissions into hospital by them in 1882 amounted in Bengal to 271, in Madras to 288, and in Bombay to 224 per 1000 of strength. Primary syphilis furnished a considerably higher proportion of cases in Madras than in Bengal or Bombay, the admissions having been 109·6, 87·1, and 67·8, but there was a greater amount of secondary cases in Bombay than the other presidencies.

The beneficial influence of the hill stations upon the health of the troops is shown by the low rate of admissions and deaths which occurred at those in Bengal. Upwards of a fourth of the force were located at them, and the proportion of admissions into hospital was only 975 per 1000, and of deaths 8·65, both much under the average of the presidency. In Madras and Bombay there was but a small proportion of men at hill stations, only 718 out of a force of 22,000; the admissions into hospital among them was above, but the deaths were under, the average; the numbers, however, were too small to justify any positive deductions.

The invalids sent to England amounted to 33·08 per 1000 of the strength, but upwards of one-half were sent home for change, not for discharge. The most frequent cause of invaliding was general debility, the result of attacks of malarious fever, and next to it ranked diseases of the heart, hepatitis, and phthisis.

A table is given showing the health statistics of newly arrived regiments compared with those of the army generally, by which it appears that the admissions into hospital among them were lower, but the mean sick- and the death-rate higher, though not to so marked an extent as in the preceding year. We observe that a change has been made in the Appendix, by which the means of checking these results are withdrawn. In our notice of the Report for 1881 (see THE LANCET, March 24th, 1883), we pointed out that an analysis of the tables did not bear out the results as stated in the report. It is therefore much to be regretted that in the present report an alteration of so important a nature should have been introduced into the returns of the European force. The details for each regiment and battery are not given as in former years, but only for each station.

The influence of age upon the mortality and invaliding of the European troops in India in 1882 is shown in the following table:—

	Ratio per 1000 of strength.			
	24 years and under.	25 to 29 years.	30 to 34 years.	35 years and upwards.
Died	11·43	11·06	13·61	14·49
Invalided ..	25·49	32·23	38·82	56·72

The excess of the deaths under twenty-five, as compared with the next period, was due chiefly to enteric fever. There was also a slight excess from other fevers and from phthisis, but a considerable exemption from all other causes of death. The only cause of more invaliding among the younger than the older soldiers was palpitation, for which 2·96 per 1000 were invalided under twenty-five years of age, and only 1·55 per 1000 above that age.

The effect of length of residence upon the death-rate and the invaliding was as follows:—

	Ratio per 1000 of strength at each period of residence.			
	1st and 2nd years.	3rd to 6th year.	7th to 10th year.	10th year and upwards.
Died	13·78	11·12	8·78	14·75
Invalided ..	17·05	41·85	30·22	50·93

The high death-rate in the first and second years of residence was entirely due to enteric fever. The excess of invaliding in the second period compared with the third was caused chiefly by debility and anæmia, heart affections and phthisis.

The mortality of the officers of the British and Indian services during the years was in the ratio of 11·28 per 1000 of the strength. Of thirty-nine deaths which occurred, only eight took place in India. The death-rate among the women was 19·78 per 1000, childbirth, abortion, and phthisis being the most frequent causes of death. Among the children the mortality was 48·65 per 1000. Diarrhœa, convulsions, bronchitis, and dentition were the most prominent fatal diseases.

THE amount realised by the Sheffield Hospital Saturday collection this year is £1388 7*s.* 2*d.*, being £46 11*s.* 8*d.* less than the amount collected in 1883.

THE INTERNATIONAL HEALTH EXHIBITION.

Group 1.—Food (continued).

DAIRIES and dairy appliances and products occupy, most deservedly, an important place in the South Gallery. Milk reform is only a thing of yesterday, and yet it is already one of the greatest triumphs of sanitary science. It is impossible to guess at the loss of life that bad milk has caused in past times, and men, women, and children are still dying of it daily. The danger has only recently been discovered. Milk is as sensitive to taint as an animal, and requires almost as much care in its treatment. Its pollution may at any time render it a poison; its dilution may entail starvation to thousands of the children who depend on it. It is most satisfactory to find that the great companies who provide a large portion of the milk-supply of London recognise these truths, and do their best, as the present Exhibition shows, to avoid the old dangers. We cannot pretend to describe the exhibits in detail, or to rank them in order of merit. Few of our readers will fail to see and study them, and all certainly will find them interesting. Taking them in the order of the catalogue, we begin with the London and Provincial Dairy Company. The large space occupied by this company is crowded with interesting objects. Beginning with the cows, we go on to the refrigerator, which brings the temperature of the milk down to 60° F. This, which looks like a vertical gridiron, is really an upright condenser, through the horizontal pipes of which a stream of cold water passes. The milk trickles down over the outside of these pipes. Then comes the "cream separator." There are several forms of this ingenious machine, but we gather that the favourite is the De Laval. In a central chamber the milk is made to rotate at the rate of about 6000 or 7000 revolutions per minute, whereby the heavier skim milk is carried to the circumference, while the lighter cream remains inside. By neatly contrived pipes the skim milk and cream are made to overflow through separate channels into pails set to receive them. In this way the delay caused by the slow rising of the cream is avoided, and there is no chance of the milk turning sour in the meantime. On the other hand, however, there seems some little doubt whether the cream so obtained is quite equal in flavour to that obtained in the old-fashioned way. Many different churns are shown by the same company, but the preference is assigned to an oscillating churn, in which the butter can be obtained in from three to five minutes. A variety of butter workers complete the series; and we thus see that from the cow to fresh butter need not take more than fifteen minutes at the outside. Passing by many interesting details, we must notice with approval the system by which this company prevents the possibility of their milk being sophisticated after it leaves their premises. They supply it to their customers in sealed glass bottles, removing at the same time the bottles of the day before. Obviously, nothing can be better than glass for the storage of milk; and the risk of loss and breakage of the bottles is said to entail no appreciable increase of cost. Fresh cream is supplied in the same way. The patent cold dry air machine of Messrs. Hall and Co. of Dartford is also shown at work. It is driven by an "Otto" gas engine, and is singularly efficient, permitting the preservation of all kinds of food for an indefinite period.

The next shed is occupied by the Express Dairy Company, who have several novelties in apparatus. The Hamburg Cream Separator, although working on the same principle as the De Laval is larger and more powerful. The cream is removed from the inner circumference of the revolving milk by a sharp-edged pipe, which dips about one-sixteenth of an inch into it. This machine will remove the cream from 140 gallons of milk per hour. The "Nakskov" cream separator is shown for the first time. There seems to be still a doubt whether it is an improvement. The same company show several forms of butter workers, of which the "Blanchard," worked by hand only, seems very ingenious, and is certainly novel. Two segments of cylinders are made, by a simple mechanical contrivance, to rotate against one another, and so squeeze the butter effectually and with very little labour. A little Brittany churn, in which by a few simple multiplying wheels a single pound of butter can be turned out in five minutes, will attract the attention of housekeepers; as will also the simple and convenient apparatus for the pro-

duction of Devonshire clotted cream. It is fair to add that everything exhibited by the company is beautifully clean and free from apparent risk.

Another highly interesting collection is that of Messrs. Welford and Sons (Limited). In addition to cream separators and butter pressers analogous to those already described, we see here in work the excentric churn of Taylor, which is large and powerful. The cream can easily be kept at the suitable temperature, about 50° F., and the butter is said to be best when it "comes" in about twenty minutes. It is then washed four times in the churn, and after pressing is transferred to the Danish "hardening box," in which it is cooled but not frozen, for freezing, it appears, spoils the butter. The sanitary precautions taken by this company were fully described to us, and appear excellent. The internal drainage is carried in glazed half-pipes; there are no traps and the sewer connexions are all made by open boxes. A well-known physician, attached to one of the London hospitals, exercises a general sanitary supervision, and in every place from which milk is obtained a local physician is retained who visits the farm and receives a fee whenever he reports the existence of any zymotic disease. *Employés* of the company have no temptation to conceal the existence of disease in their homes, for they receive full pay if they are compelled in their masters' interests to stay away. It is difficult to imagine what further precautions could be taken.

Messrs. T. Bradford and Co. have arranged a model dairy, consisting of four rooms built of glazed bricks. They are well arranged, and are sweet and extremely clean. One of them contains the patent "diaphragm" churn and "Albany" butter worker, both the property of the firm, and both, as far as we are able to judge, simple and efficient.

The Pure Standard Food Company shows a variety of dairy appliances and carefully prepared foods.

Limits of space compel us to notice in few words several interesting collections of purely scientific interest. One of these is comprised in the four cases illustrative of the chemistry and physiology of food, borrowed from the Bethnal-green Branch Museum. This series was formerly in the South Kensington Museum. It is useful, but is too well-known to require description. Another is the valuable contribution of the Parkes Museum of Hygiene, a large series more or less analogous to that of Bethnal-green. Not less interesting is the series of drawings of parasites and parasitic diseases lent by Dr. T. S. Cobbold, F.R.S. Here we find excellent and vivid drawings of the trichina, hydatids, flukes, and lung parasites, all valuable helps to pathological study. In this connexion one may also notice the apparatus of Messrs. Carpenter and Nicholson for what they appropriately call the biological examination of water. There are many others which we are compelled to omit. We shall hope to describe the classes of beverages and machinery in motion in an early number.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

As a supplement to the necessarily hurried report which appeared in our last week's issue of the meeting which took place on Thursday, June 12th, it should be mentioned that amongst those present were Mr. Crosse (Norwich), Mr. Oliver Pemberton (Birmingham), Messrs. Henry Morris, Norton, Barwell, Allingham, Davy, Black, Hickman, Wickham Barnes, Pearce Gould, Adams, Lockwood, and Cronin.

The meeting had been summoned at very short notice, and thus many who would otherwise have been present were prevented by professional and other engagements from attending, though many of the leading metropolitan and provincial Fellows wrote to express regret at their inability to attend. Besides the business already reported, a resolution was passed that the entrance fee to the Association should be five shillings, and an instruction was given to the secretaries to receive this sum from members. All those Fellows who approve the objects of this Association will materially lighten the work of the secretaries, if they will forward a postal order for five shillings to either of them.

We are asked to remind those who contemplate joining, and even those who have hitherto hesitated, that the objects of this Association are to "consider all matters relating to the constitution and government of the Royal College of Surgeons, and to promote the professional and social no less than the political welfare of the Fellows."

The secretaries were also authorised to send a copy of the Resolutions forming the basis of the Association to those candidates for a seat on the Council who have not already signified their approval of them.

To the Editor of THE LANCET.

SIR,—Permit me to state that at the meeting of Fellows held on Thursday, the 12th inst., Mr. John H. Morgan, 68, Grosvenor-street, and Mr. Bruce Clarke, 46, Harley-street, were appointed joint secretaries. All further communications with regard to the Association of Fellows should for the future be addressed to them.

I am, Sir, yours faithfully,

Plymouth, June 14th, 1884. PAUL SWAIN, F.R.C.S.

HOSPITAL SUNDAY FUND.

THE following is a list of the principal collections on behalf of this fund received up to the 18th inst.:—St. Michael's, Chester-square, of which the Rev. Canon Fleming is the vicar, £1087, this being the largest sum ever received from any one church in aid of the fund; Kensington Parish Church, £495 16*s.* 11*d.*; St. Matthew's, Bayswater, £286; the Temple Church, £216; St. Peter's, Vere-street, £204; St. Mary's, West Kensington, £116; Camden Church, Camberwell, £111; St. Nicholas', Chislehurst (including £100 from Mr. Richard Foster), £201; St. John the Evangelist's, Wilton-road, £124; St. Margaret's, Westminster, £117; Union Congregational Chapel, Islington, £138; St. Paul's, Onslow-square, £321; St. Paul's Cathedral, £252; St. Stephen's, South Dulwich, £177; Westminster Abbey, £272; Kensington Congregational Church, £104; St. Mark's, North Audley-street, £204; St. Andrew's, Wells-street, £163; Messrs. Moody and Sankey, Temple-gardens Hall, £262 10*s.* 8*d.*; St. James's, Paddington, £116 7*s.* 4*d.*; St. Sophia's (Greek Church), Bayswater, £105 6*s.*; Holy Trinity Parish Church, Sydenham, £129 4*s.* 6*d.*; Holy Trinity, Hampstead, with Emmanuel and St. Cuthbert's, £107 0*s.* 7*d.*; Metropolitan Tabernacle, £205. The aggregate of the collections in the Jewish synagogues amounted to nearly £1000.

At the meeting last week of the Court of Common Council of the City of London, Mr. Deputy Saunders (for Mr. Deputy Bontems) moved that £105 should be contributed out of the City's cash to the Hospital Sunday Fund, and the motion was carried.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Handsworth (Urban).—The report of Dr. J. B. Welch, the medical officer of health to this urban sanitary district, relating to the year 1883, contains much valuable statistical information bearing upon the "character, housing, and density" of its population, which, as he urges, largely affect the amount of sickness and mortality in any district. The population of this district, which may almost be called a suburb of Birmingham, increased from 14,359 in 1871 to 22,896 in 1881, and was estimated by Dr. Welch in the middle of 1883 to be 25,020. It is stated that 2109 of 5406 assessable houses in 1883 were rated at or below £10, from which fact it is reasonably inferred that Handsworth has a population of 10,500 persons of the artisan and labouring class. On the other hand, it is stated that no back-to-back houses have been sanctioned since the local board was first elected in 1874, and that "almost universally each house is occupied by a single family, very few lodgers being taken." The amount of

pauperism among the population is exceedingly small, scarcely more than 1 per cent. of the population, 273 persons being in receipt of out-door relief on Jan. 1st last. Considering the nature of the population, it is surprising to find that the birth-rate in 1883 did not exceed 30·3 per 1000, this rate showing a decrease of 2·3 from the mean rate in the ten years 1871–80. This low birth-rate is attributed to the decline of the marriage-rate in recent years owing to depressed trade. The death-rate was 15·3 per 1000, while in the three preceding years it had been so abnormally low as 13 per 1000. Infant mortality, measured by the proportion of deaths under one year of age to births, which had not exceeded 119 per 1000 in the ten preceding years, rose in 1883, but not higher than 124, which for an urban district is satisfactorily low. We should have wished to know the rate of mortality among children under five years, which is one of the best tests of sanitary condition. Zymotic mortality, notwithstanding the fact that both scarlet fever and small-pox showed some prevalence, did not exceed the rate of 2·2 per 1000, while in 1881 and 1882 it was so low as 1·2 and 1·4. Dr. Welch again adverts to the necessity for improvement in the drainage of the district, and for the establishment of a hospital for infectious diseases, in order to maintain the improved sanitary condition of the district. The propinquity of a great town like Birmingham makes the need of the latter requirement all the more urgent.

Dublin.—Dr. Cameron has published an exhaustive report of the state of public health of this city for 1883, and which embraces vital statistics, meteorology, condition of dwellings, sanitary operations, and causes of death. We learn that the greater number of families in Dublin occupy each but 1½ rooms on the average; and that in the tenement houses there are 88,116 rooms used by 32,202 families. The births registered during the past year in the metropolitan area numbered 9955, being at the rate of 29 per 1000; and the deaths 10,161, or 28·3. The death-rate was somewhat over the average of the previous decade, but as burial returns were not in force until 1879, about 10 per cent. of the deaths up to that period escaped registration. Of zymotic diseases the most fatal was whooping-cough, which caused 276 deaths, or at the rate of 1·1 per 1000; and the next scarlatina, which had a mortality of 151; but there were comparatively few deaths from measles, which was extremely prevalent in the two preceding years. Diseases of the respiratory organs, excluding phthisis, caused 1708 deaths. Dr. Cameron remarks that a fall of temperature in the spring months of the year causes a greater mortality than in the latter months—that is to say, that a cold March is more unhealthy than a cold December. Only one case of small-pox occurred, which was promptly removed to the hospital ship, and fortunately the disease did not spread further.

Barton-upon-Irwell (Rural).—Good work is in progress in this district. In 1875 there were, with but few trifling exceptions, no sewers or proper house drains, the whole area of the district was ill-supplied with water, the privy accommodation was wretched and was attended with much nuisance, and the death-rate had stood at an average of 20·3 per 1000. Now it is reported that nearly twenty-two miles of sewers have been provided, that three sewage farms have been laid out, that £3000 have been spent on street improvements, and that although some nuisance still exists as to privies and uncovered ashpits, yet the worst have been remedied. Negotiations are in progress to secure the Manchester water-service. The average death-rate has fallen to 16·2, and the decrease in the average zymotic death-rate amounts to 41 per cent. of what it formerly was. Work in the same directions is still needed, but on the whole the result of the efforts bestowed on the district during recent years by Mr. Knowles and his fellow officers must be held to be very satisfactory.

Ventnor (Urban).—If the deaths of visitors who seek this district for phthisis and other diseases are reckoned, the death-rate for 1883 was some 20 per 1000; eliminating such deaths, the rate for residents alone is given as 12·3 per 1000; and the town has also been singularly free from zymotic diseases. Indeed, apart from two cases of typhoid fever, no case of any infectious disease was heard of, and no death occurred. Thorough house-to-house inspections have been carried out, additional means of ventilation to the public sewers have been provided, the disconnexion of sink and other pipes has been carried out, and other excellent sanitary work has been effected.

Preston (Urban).—In a population of 98,564 the death-rate for 1883 was 23·8 per 1000. From typhoid fever 41 deaths took place, a somewhat general prevalence of the disease having occurred in the last quarter of the year. Milk at first seemed implicated, but the prevalence of the fever at a dairy farm could not be associated with the outbreak. Mr. Pilkington points out that in Preston by far the largest proportion of typhoid fever cases are met with in houses unprovided with inside waterclosets, and in which there is no communication with the drains, and although he does not explain the cause of the incidence of the disease in the special class of houses affected, yet he implies that the infection is communicated by means of excreta emanations in connexion with ashpits and middens. With regard to diarrhœa, which caused 220 deaths, it was mainly infantile and autumnal, and Mr. Pilkington's inquiries go to show that, given certain conditions of summer temperature and drought, diarrhœa becomes fatal in those localities where the middensteads, occupying a limited portion of the yard space, are often in close proximity to the dwellings themselves; where the backs of one row of houses abutting closely upon those of another street tend to stagnation of atmosphere about dwellings, and this especially where the interspaces are soaked with slop water and other liquid refuse; and where in consequence the summer sun tends to the development of foul odours and dangerous effluvia. Preston is one of the towns which suffer so largely from autumnal diarrhœa, and it is evident that there is ample work to be done in remedying the conditions with which it is associated.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6445 births and 3326 deaths were registered during the week ending the 14th inst. The annual death-rate in these towns, which had been equal to 20·0 and 19·6 per 1000 in the two previous weeks, were 19·8 last week. During the first eleven weeks of the current quarter the death-rate in these towns averaged 21·2 per 1000, against 20·7, 21·4, and 21·9 in the corresponding periods of 1881, 1882, and 1883. The lowest rates in these towns last week were 13·4 in Brighton, 14·3 in Bristol, 14·7 in Bradford, and 16·1 in Derby. The rates in the other towns ranged upwards to 24·1 in Blackburn, 24·9 in Bolton, 26·9 in Liverpool, and 28·0 in Wolverhampton. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 503, against 500 and 509 in the two previous weeks; they included 163 from measles, 121 from whooping-cough, 66 from scarlet fever, 63 from diarrhœa, 33 from small-pox, 33 from "fever" (principally enteric), and 29 from diphtheria. The lowest death-rates from these diseases occurred last week in Derby and in Huddersfield, and the highest in Salford, Plymouth, and Liverpool. The greatest mortality from measles occurred in Plymouth, Wolverhampton, Blackburn, and Liverpool; from whooping-cough in Sunderland and Liverpool; from scarlet fever in Cardiff, Halifax, and Birkenhead; and from "fever" in Portsmouth and Salford. No fewer than 24 of the 29 deaths from diphtheria in the twenty-eight towns occurred in London. Small-pox caused 30 deaths in London (including 3 recorded outside Registration London in the hospital ship *Atlas* and the Convalescent Camp, both at Darenth), 5 in Liverpool, and 1 in Sunderland. The number of small-pox patients in the metropolitan asylum hospitals, hospital ships, and convalescent camp, which had increased in the twelve preceding weeks from 148 to 1096, had further risen to 1238 on Saturday last, and exceeded the number under treatment in these hospitals at any time since the end of June, 1881; 332 new cases were admitted to these hospitals during last week, against 237, 370, and 155 in the three preceding weeks. The Highgate Small-pox Hospital contained 84 patients on Saturday last, showing a further increase upon the number on recent Saturdays; 21 new cases were admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the six preceding weeks from 360 to 249, further fell last week to 246, but exceeded the corrected weekly average by 10. The causes of 65, or nearly 2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Brighton, Leicester, Sunderland, and in six other smaller towns. The largest proportions of uncertified deaths occurred in Derby and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·3, 22·7, and 23·3 per 1000 in the three preceding weeks, declined again to 22·7 in the week ending the 14th inst.; this rate exceeded, however, by 2·9 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·4 and 17·6 in Perth and Dundee, to 22·9 in Greenock and 26·6 in Glasgow. The deaths in the eight towns included 88 which were referred to the principal zymotic diseases, against 92 and 99 in the two preceding weeks; 28 resulted from whooping-cough, 20 from diarrhœal diseases, 17 from measles, 11 from scarlet fever, 7 from diphtheria, 5 from "fever," and not one from small-pox. The annual rate from these diseases averaged 3·6 per 1000 last week in the Scotch towns, and was 0·6 above the rate from the same diseases in the twenty-eight English towns. The 28 deaths from whooping-cough showed a decline of 8 from the number in the previous week, and included 18 in Glasgow and 6 in Edinburgh. The 17 fatal cases of measles were fewer by 7 than the number in the previous week; 6 occurred in Leith, 5 in Glasgow, 4 in Dundee, and 2 in Paisley. The 20 deaths attributed to diarrhœal diseases exceeded the numbers returned in recent weeks, but were 1 below the number in the corresponding week of last year; they included 6 in Dundee and 4 both in Glasgow and in Edinburgh. The 11 fatal cases of scarlet fever exceeded the number in the previous year by 5; 8 occurred in Glasgow, against 6 and 4 in the two previous weeks, and 2 in Paisley. Six of the 7 deaths from diphtheria, and 3 of the 5 from "fever," were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 90 and 101 in the two previous weeks, declined again to 90 last week, and were 19 below the number returned in the corresponding week of last year. The causes of 84, or 15 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had steadily declined in the five preceding weeks from 31·8 to 21·9, further declined to 21·7 in the week ending the 14th inst. During the first eleven weeks of the current quarter, however, the death-rate in the city averaged 26·3 per 1000, whereas the rate did not exceed 20·2 in London and 22·3 in Edinburgh during the same period. The 146 deaths in Dublin last week showed a further decline of 1 from the numbers in recent weeks, and included 10 which were referred to the principal zymotic diseases, against 15 and 14 in the two previous weeks; 5 resulted from scarlet fever, 4 from "fever" (typhus, enteric, or simple), 1 from diarrhœa, and not one from small-pox, measles, diphtheria, or whooping-cough. These 10 deaths were equal to an annual rate of 1·5 per 1000, the rate from the same diseases being 3·3 in London and 2·5 in Edinburgh. The fatal cases of scarlet fever in Dublin, which had been 8 and 7 in the two previous weeks, further declined to 5 last week, making, however, 70 deaths from this disease recorded in the city since the beginning of April; the 4 deaths from "fever" corresponded with the number in the previous week. Three deaths from violence were registered and five inquests were held; 42 deaths were recorded in public institutions. The deaths both of infants and of elderly persons showed an increase upon the numbers in the two previous weeks. The causes of 18, or 12 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

INDIA OFFICE.—The Queen has approved of the admission of the undermentioned Surgeons to Her Majesty's Indian Medical Service:—Bengal: James John Pratt and Robert Shore, M.D. Madras: William Burney Bannerman and Henry Thomson. Bombay: Carrapiet John Sarkies.

The Queen has approved of the retirement from Her Majesty's Indian Military Forces of Deputy Surgeon-General Richard Henry Perkins, of the Bengal Army; Surgeon-Major Frederick William Alexander De Fabeck, of the Bengal Army; and Surgeon-Major Thomas Holmested, of the Bombay Army.

ADMIRALTY.—Deputy Inspector General of Hospitals and Fleets George Mason, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

The following appointments have been made:—Surgeon John L. Barrington, to the *Ready*; Surgeon William Tait, M.B., to the *Cambridge*; Surgeon William M. Craig, to the *Alecto*; Surgeon George J. Fogerty, to the *Banterer*; Surgeon John O'Callaghan, Surgeon George Bate, and Surgeon Joseph H. Whelan, to the *Alexandra*, additional; Surgeon Michael J. M'Carthy, to Plymouth Hospital; Surgeon Henry F. Iliewicz, to the *Ganges*.

RIFLE VOLUNTEERS.—1st Elgin: Ernest Æneas Mackintosh, Gent., M.D., to be Lieutenant.—4th Lancashire: Acting Surgeon Edward Morton Garstang resigns his appointment.—2nd Cornwall (Duke of Cornwall's): John Henry Jenkins, Gent., to be Acting Surgeon.—3rd Hampshire: Edwin John Hunter, Gent., to be Acting Surgeon.—1st Isle of Wight: Lieutenant Thomas Ormsby Wiley is appointed Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE HOME HOSPITALS ASSOCIATION AND PAYING WARDS IN EXISTING HOSPITALS.

To the Editor of THE LANCET.

SIR,—I wish to ask for a little space in order to correct a misapprehension which the writer of the annotation in to-day's LANCET seems to labour under in reference to the report of the Home Hospitals Association for Paying Patients. He writes: "It is most unfortunate that Dr. Quain and Mr. Burdett should find any encouragement or argument for the extension of home hospitals in the statement that the principle of paying patients was being extended to ordinary hospitals." This is an entire misapprehension, and no such argument is used in the report; but in referring to the work of the Association, which included at the outset first the establishment of home hospitals for paying patients, and secondly the opening of paying wards in connexion with existing hospitals, the governors are to be congratulated on the facts not only that the home hospital proper has been a complete success, but that the system of payment by patients, according to their means, for the treatment they receive when inmates of a hospital, has rapidly grown in public favour. This is surely matter for congratulation. The general adoption of this principle by hospital managers will ensure the abolition of the present ticket system and all its abuses, and the substitute for it of a plan of admission which will provide and secure that every poor person who is entitled to medical relief at a hospital will be granted free admission without delay or difficulty, while those applicants who desire it will have the privilege of maintaining their independence by contributing according to their means, if it be but two or three shillings a week, towards the expense which is entailed by their treatment at one of the existing hospitals. So much for the principle; now for its application.

I believe you agree with me that the pay-patients must be treated in separate wards, or in a separate wing, when they are admitted to a voluntary hospital; that the income and expenditure of these paying wards must be kept distinct; and that each paying patient shall possess the right of being attended, at his option, by his own doctor. The experience I have had in connexion with the Home Hospitals Association has convinced me that very many people desire to secure hospital treatment on payment according to their means, and that not a few of those who are at present admitted to existing hospitals without payment would prefer entering a paying ward if such an opportunity were afforded them. For this reason, and because I believe the principle of payment according to means to be sound, I advocate the admission of paying patients to existing hospitals under proper regulations. If this modification be introduced into the present system of admission to our hospitals great good will be accomplished. The poor and friendless will then, without difficulty or delay, secure the hospital accommodation they need in the day of sickness. The thrifty and self-respecting will thereby enjoy the glorious liberty of being independent. The undeserving,

that large class who at present abuse the hospitals for their own purposes, will find that they must perforce amend their ways, and cease to appropriate accommodation and benefits which are intended, and should be reserved, for the poor and the deserving. These are great results, and they can be accomplished not only without lessening a single bed which is at present available for the poor, but they will undoubtedly result in increasing the amount of accommodation which the weak, the friendless, the suffering, and the absolutely poor will have placed at their disposal. For these reasons, whilst a stern opponent of the alienation of a single bed from the use of the absolutely poor, for whom it was intended, I am of opinion that it is better for the endowed hospitals to keep their buildings in order and to maintain their wards in efficiency by the admission of paying patients, rather than to close such wards and to let the buildings fall into disrepair, as they most certainly would do if unoccupied, when funds are not forthcoming to maintain them. But the admission of paying patients to endowed hospitals must be regulated by the state of the finances, and the moment funds are forthcoming the paying patients must be refused admission in order to provide the maximum of accommodation for the treatment of the deserving poor.

Such, Sir, are the views not only of myself, but of an increasing number of hospital managers, as well as of a large number of the people. This knowledge forces me to conclude that the question of admission of paying patients to existing hospitals presses for solution. Either the existing hospitals must provide accommodation for paying patients, or a new system of hospitals will eventually have to be opened not only in London, but in every large town throughout the country.

THE LANCET is regarded by laymen as especially representing the views of the medical profession on this and other questions. It is for this reason that I am anxious you should give some distinct expression upon the principle of admitting paying patients to the existing hospitals. If you state it is not permissible for the hospital authorities to grant admission to paying patients to any of the buildings under their control, then it will be necessary to have separate hospitals for this class of patients in every large town in England. Such a course would entail the expenditure of a large sum of money on additional buildings, would greatly increase the outlay on management, and would further prevent existing hospital authorities from encouraging those principles of thrift amongst the patients which should constitute the basis of all medical relief. For these reasons I hope you will agree with me that the principle of admitting paying patients to voluntary hospitals is a sound one, provided they are treated in separate wards or wings under the conditions I have already stated.

I am, Sir, yours faithfully,
HENRY C. BURDETT.

Gloucester-road, Regent's-park, June 14th, 1884.

*** We publish Mr. Burdett's letter on the principle of *audi alteram partem*. At the same time his arguments in favour of admitting paying patients into our voluntary hospitals have not in any way altered our views. Our noble charities were intended to be supported by voluntary subscriptions from the wealthy, and for the treatment of the destitute poor in sickness. They were never meant to become commercial enterprises. If we are to have institutions in which patients can be received by payment, they should, in our opinion, be perfectly separate from our hospitals. We fear that the agitation now being carried on for the purpose of converting hospitals into paying establishments is influencing injuriously the benefactors of our charities, and diverting subscriptions which would otherwise be devoted to the augmentation of their funds.—ED. L.

"VOLUNTEER MEDICAL ORGANISATION."

To the Editor of THE LANCET.

SIR,—In the remarks of your correspondent respecting the ambulance movement, I find that he has erred in respect of the intention of such training in the militia and volunteer branches of the army. By the late War Office circular (May, 1884), it is ordered that ambulance instruction may be given throughout the whole army, to regular as well as to auxiliary forces, but that in the militia and volunteer branches two men of the rank and file per company may be detailed for such ambulance work. Consequently, it cannot happen that either colour-sergeants, sergeants, or any superior non-commissioned officer can be detailed to wear the badge. As corporals are in the ranks, they may be chosen with others, and the bearer company of any regiment will then be prepared to take the field as such; and it would not occur in the event of an engagement that the men wearing the Geneva badge would fall out of the ranks during action, and so abuse the neutrality of the same; they would be in the field as bearers, and as such would be non-combatant. Of course, the instruction can be given to all ranks, officers, non-commissioned officers, and men, as is allowed by the War Office circular alluded to, but no medical officer would think of asking any commanding officer to detail his non-commissioned officers for this work, however skilled or efficient they might be. In my own corps I have instructed officers, staff-sergeants, colour-sergeants, corporals, and sappers, but only from the rank and file have I nominated, and my commanding officer appointed (Vol. Reg., sec. 16, p. 486), the bearers of my corps, who parade as such when ordered, and accompany the battalion prepared with stretchers and appliances. Your correspondent has evidently confounded the class with the bearers, which latter alone would be entitled to the neutrality of the Geneva badge. Of course such an elementary medical service would not answer all the needs of war, but it would afford assistance of first aid to the wounded by which many lives might be saved, under guidance of the regimental medical officer, leaving the after-treatment to be given by the proposed Volunteer Medical Association, the establishment of which is so strongly advocated by Surgeon-Major Evatt, Army Medical Department. Such an Association need in no way be at variance with the volunteer medical officers, nor with the present Volunteer Ambulance Department, which is gradually expanding and being recognised as part of the *matériel* of each regiment by the War Office and the respective commanding officers. The volunteer medical service, as now sanctioned, would thus supplement, if not complete, what the Volunteer Medical Association seeks to perfect.

I am, Sir, yours faithfully,
M. BAINES, M.D.,
Surgeon-Major 1st Mid. Eng. Volunteers.

Headquarters, College-street, S.W., June, 1884.

HOSPITAL FOR SOLDIERS' WIVES, ALDERSHOT.

To the Editor of THE LANCET.

SIR,—I have much pleasure in forwarding to you an account of the work done in the above-named hospital since November, 1866, when the hospital was placed upon its present footing and supplied with its present staff of nursing sisters. During that period the hospital has been in charge successively of four medical officers and (with one exception of a nurse invalided last year) the matron, Sister Faith, and the other nurses have remained attached to the hospital up to the present time. In addition to the cases of parturition, of which I furnish the particulars, the hospital is open to all wives and children of soldiers suffering from acute or serious diseases.

The total number of women delivered was 4732; of these 1206 were primiparæ. There were 227 stillbirths, 56 cases of twins, and one case of triplets. The total number of deaths was 33, or 69 per cent. Presentations: Occiput, 4450; face, 26; hand and foot, 1; hand and head, 67; hand and shoulder, 4; head and funis, 9; hand and funis, 1; breech, 72; foot, 49. Causes of death: Bronchitis, 2; erysipelas, 1; septicæmia, 6; diarrhœa, 2; metritis, 4; placenta prævia, 2; post-partum hæmorrhage, 2; convulsions, 2; after craniotomy, 2; other causes, 7; scarlet fever, 3. The forceps were used fifty-eight times, followed by death in three cases; one had convulsions and post-partum hæmorrhage. One was a case of twins, of which one was delivered by craniotomy, and one by the forceps, followed by flooding. The third died from exhaustion.

We have at present a sequence of 530 cases, extending over a period of more than two years, without a death. During the latter half of the whole period there has been a marked diminution in cases of mal-presentation, as well as of acci

dents and difficulties immediately connected with labour. This I attribute to the very great improvement which has taken place in the moral, physical, and sanitary condition of soldiers' wives in recent years. Spina bifida occurred once in a case of twins, each child being affected. One child was born without the left arm. On the whole, I consider that these results will bear comparison with those of any maternity hospital, if not with those obtained in private practice.

I remain, Sir, yours faithfully,

FRANKLIN GILLESPIE, M.D., F.G.S.,
Aldershot, June 17th, 1884. Surgeon-Major in charge.

ROYAL COLLEGE OF SURGEONS.

THE following is the letter addressed by Dr. Edwin Morris to the President and Council of the College, and referred to in our notice last week :—

Spalding, May, 1884.

MR. PRESIDENT AND GENTLEMEN,—I have always taken great interest in all that relates to the welfare of the College of Surgeons, and especially with regard to its future management, which induces me to address you on the subject of the addenda to be made to the new Charter. I certainly take to myself the credit of setting the ball of reform rolling, when in July, 1866, I alone stood up before the then President of the College, Mr. Hilton, and challenged the right to speak relative to the merits of the several candidates for seats at the Council. The President very courteously replied, "I am sorry I cannot allow you to go on. I received your letter, and we are advised that the Charter distinctly states that the business of the day shall be for balloting of members of the Council only; so far as I am concerned personally, I am sorry I cannot permit it." I allude to this little episode at the College, as the ball of reform has never ceased rolling since, and culminated in the first authorised meeting of the Corporation since it received a Charter. That meeting was held March 24th, 1870, and I had the honour of being the first person outside the Council to stand up by right to speak within the walls of our own College and propose the first resolution. About 250 Fellows and Members were present. Mr. Cock, who presided, said, "Any resolution you may come to shall be received, and shall be considered with the most earnest attention by the Council of this College." Years have elapsed and nothing came of all this, until a short time since a notice was given that the Council had at length decided to apply for an amended Charter, and called a general meeting of Fellows and Members, to elicit their views with respect to the alterations to be made. This was as it should be. The Council will gain strength by taking into their confidence the Fellows and Members, the latter the very backbone of the institution. I attended the meeting and was fully prepared to propose the following resolutions, but was persuaded not to do so—I am sorry I did not, as I found afterwards I should have met with considerable support—viz., 1. That no Charter will be acceptable that does not recognise equal electoral rights both for Fellows and Members. 2. The right to vote by voting papers, properly attested by a magistrate having a personal knowledge of the voter. 3. The President to be elected by the Council for three years from among the Fellows and Members generally. 4. Fellows in general practice not to be disqualified for a seat in the Council. No one is in a better position for knowing the feelings of the Fellows and Members in the provinces than I am; and unless some such liberal concessions as I have stated are made, there will be no lasting satisfaction given.

I remain, your obedient servant,

EDWIN MORRIS, M.D., F.R.C.S.E.

To the President and Members of Council of the Royal College of Surgeons, London.

LIVERPOOL.

(From our own Correspondent.)

THE NATIONAL TEMPERANCE CONGRESS.

THE first meeting of the National Temperance Congress is being held here. This city has a most unenviable notoriety for intemperance, and is alleged to have an overwhelming number of incorrigible drunkards. While it may not be worse than some other places which might be named, it must be admitted that there is a very large amount of intemperance in Liverpool; and very little trouble need be taken by a resident or casual visitor to satisfy himself upon this point. A visit to the police-court, borough gaol, workhouses, or any of the hospitals will prove it; and a walk through the streets on a Saturday afternoon will show how doubtful an advantage the Saturday half-holiday has proved to the working man. Dr. B. W. Richardson presided at the first meeting on Tuesday, and at the same meeting papers were read by Dr. McMurtry of Belfast, and Mr. A. G. Miller of Edinburgh, in addition to the President's address.

THE PREVALENCE OF SMALL-POX.

It is thirteen years since Liverpool was visited with an epidemic of small-pox, and we are now threatened with another. The former occurred very shortly after the consolidation of vaccinating districts and the reduction in number of public vaccinators. What may be the causes of the present increase of the disease it would be hard to say, but one may be indicated—the mischievous agitation of the anti-vaccinationists, of which Liverpool has its fair share.

ALLEGED CASES OF POISONING.

As has frequently happened before, the wholesale poisonings which were recently revealed, and which led to the conviction and execution of the women Flannigan and Higgins, have been followed by other cases of alleged poisoning. Careful inquiry, however, established the fact that the deaths were due to natural causes. A case is now being investigated in which a lady died at Wallasey, in Cheshire, in April, 1883, and was buried in Kensal-green Cemetery. There is every reason to believe that she died from purely natural causes, and that there is nothing to establish the charge of poisoning. But an exhumation has been ordered, and the inquiry will set all doubts at rest.

THE EXHUMATIONS AT THE OLD CHURCHYARD.

A considerable portion of St. Nicholas' churchyard has been removed, and during its removal several interesting facts have come to light. As the churchyard was closed in 1854, and as very few burials took place in it for many years previously, the remains are mostly reduced to skeletons, except in the cases of vaults and lead coffins. Recently, however, the body of a female in a remarkable state of preservation was found in an oak coffin buried in the earth. The lid was loose, but the plate was well preserved and showed that the body had been fifty years in the grave. The age was stated to be seventy-three, and the appearance of the jaws confirmed this. This was almost the only instance in which any effluvium was met with, and, coincidently, a good deal of water was found in the grave. All the vaults and graves which have been opened were remarkably dry.

THE LOCK HOSPITAL.

Mr. F. W. Lowndes has under his care two patients recovering from sloughing ulcers on the glans penis. One of the cases was complicated with phimosis; and though the prepuce was divided immediately on his admission, a portion of the glans had already been lost. The other case was complicated with considerable hæmorrhage. In both the external application of iodoform in fine powder was used with great success. Both the male and female wards have been unusually full lately.

Liverpool, June 18th.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

GATESHEAD PENNY SCHOOL DINNERS.

THE Rev. W. Moore Ede, rector of Gateshead, in connexion with his experiment of providing penny dinners for poor school children, gives further particulars as to his work. He states that there are always a number of School Board children who though not always actually starving are decidedly underfed, or, what comes to the same thing, unprovided with wholesome, well-cooked, and nutritious food. A very common case, he says, is that of a widow who goes out for the day. She leaves no one at home to prepare a dinner for her children; at most they get a piece of bread, which may or may not have butter on it. Very often the house is locked up and they get nothing at all. These children are not

cases for charity. The mother can very well afford on most days of the week to give them a penny to get a good meal at school, and Mr. Ede finds that parents situated in the way he has described consider these penny dinners the very thing to meet their need. Some additional information Mr. Ede gives on the subject will prove of interest to many. For instance, he extended the bill of fare given last week by the addition of two dishes, both of which were very popular—viz., fig pudding with sweet sauce and peas pudding. The first named, he states, proved "rather extravagant," as dinner for eighty cost ninety pence; but he says that those who remember their own gastronomic feats will not be surprised that with such a bill of fare as fig pudding—and a very good one too—the children consumed more than a pennyworth! Inquiry among the teachers showed that they had already observed greater activity of brain on the part of the children who dined at school than they had displayed before. Certainly, it seemed to all that those who dined regularly at school had begun to show signs of improvement in their physical condition. The Gateshead experiments are certain to have a good tendency, and are producing fruit. Already we hear of some of our School Boards—Jarrow, for instance—taking the matter into consideration, and cookery operations in the north are likely to become more general in the interests of teachers and scholars.

SUICIDES IN THE NORTH.

The number of suicides in the north at present exceeds all previous experience. In some cases depression from want of employment has been the exciting cause, but in many cases the proximate cause has been trivial, while in others no cause can be assigned for self-destruction. Can it be that the imitative propensity has something to do with it? We know how powerful it is over weak minds. Certain it is that every day's list in the paper seems to be a mere repetition of the previous day's self-destruction. Hanging and throat-cutting appear to be the most common modes in vogue. Poisoning is not frequent, and shooting and drowning are rare.

A NEW HOSPITAL FOR DURHAM CITY.

The corporation of Durham has decided to erect a new hospital for the treatment of infectious diseases, and the city is fortunate in possessing ground of its own well adapted for the purpose, so that no time need be lost in wrangling about sites, of which so many examples have of late been witnessed. It is quite time that the corporation took this step, for Dr. Barron, their medical officer of health, at the same meeting sent in a letter stating that in the city of Durham he had seen a family consisting of seven persons all residing in a single room, and in a bed with three children he found two suffering from small-pox. Dr. Barron states that in view of a possible epidemic a hospital is an urgent requirement. He justly complains that when he brought the subject before the Health Committee they decided that it was desirable to have a hospital, but that they had no power to act, and referred it to the authority. The authority referred it back to the Health Committee, and there the matter rested. Now, it appears, when "the wolf" is at the door in the form of an epidemic of small-pox, the authority is really about to provide what it should have done long since for Durham, seeing that it is especially open to risk as being the centre of a large mining population.

THE HUDSON BEQUEST TO SUNDERLAND.

The bequest of £200,000 to the poor children of Sunderland under certain conditions, and mentioned in your medical news on June 7th, is considered to be the most remarkable thing of its kind in the history of the town, and deserves more than a passing notice. Mr. Hudson was a singularly unobtrusive man, and, although he lived in a rather pretentious mansion, he kept no company in the usual acceptation of the term. He was a bachelor, and was considered "close-fisted," but it is now seen that there was "method" in this aspect of his character, for he has certainly remembered the poor in a manner likely to prove of permanent benefit to the needy children of his town. It is expressly stipulated in his will that the bequest is to orphan children or to children of paralysed parents, and that no portion of it is to be expended in the building, buying, or renting of premises for the housing of the children, it being strictly for their maintenance and education. It is stated that the greater part of Mr. Hudson's immense wealth was acquired by shipowning and profitable advances on mortgages.

SUNDERLAND INFIRMARY.

The appointment of an hon. surgeon to the Sunderland Infirmary, now at the disposal of the governors by the resignation of Dr. Ayre Smith, has given rise to a spirited contest between three candidates—Mr. Percy Blumer, Mr. Whitehouse, and Dr. James Murphy. It is believed that the office will fall to the last-named gentleman, who is the senior candidate, a lecturer in the Newcastle School of Medicine, and has made some important contributions to surgery and gynæcology.

Newcastle-on-Tyne, June 10th, 1884.

GLASGOW.

(From our own Correspondent.)

THE UNIVERSITIES (SCOTLAND) BILL.

THIS Bill has met with but a very qualified approval at the hands of the bodies it is intended to benefit. The views of the University of Edinburgh were noticed in last week's LANCET; during the past week St. Andrews and Glasgow have expressed much the same opinions, and in almost identical language. They all indicate a general approval of the Bill in all its parts with the exception of the "finality clause," protesting against the principle involved in the statement that the sum of £43,000 shall be held to discharge "all claims, past, present, and future, of the said universities." The case made out by Glasgow University is a good one. A deficiency in its funds will certainly become apparent as soon as the Bill becomes law, under the new matriculation and examination regulations; expenditure will also certainly increase as the methods of teaching improve; while the institution of new professorships and lectureships, contemplated under the Bill, will add to the expenditure for pensions. All these are conditions the scope of whose operation cannot be foreseen. In imposing indefinite duties on the universities, it is scarcely right that the income to meet the expenditure associated with these duties should be so severely limited and defined for all time. It is to be hoped that this clause will be stoutly opposed, or modified in such a way as to abate its stringency.

PUBLIC HEALTH AND PAUPERISM.

In a paper on this subject read by Dr. J. B. Russell at the Poor-law Conference in Glasgow on June 3rd, some interesting health statistics were submitted. It was shown that while England had reduced her death-rate 5 per cent. in the last ten years, Scotland had reduced hers only 2 per cent. The reduction in England was mainly the result of sanitary improvements in the business of health-seeking, and the Registrar-General explained this by stating that there could be no real doubt that the saving effected in life was the direct product of the money and labour expended in sanitary improvements. Turning to Scotland, he pointed out that while the town had effected a reduction in its death-rate during the past ten years, the rural districts, which comprised one-third of the entire population, had at the present moment a mortality rate 4½ per cent. higher than they had twenty years ago, and precisely what they had in the preceding ten years.

LUNACY AND PAUPERISM.

In a paper on this subject read at the same Congress by Dr. D. Yellowlees, it was stated that the impression that lunacy as a disease was very largely on the increase was far beyond the truth, and the increasing number of pauper lunatics afforded little or no foundation for it. The increase was due to several causes. First, many conditions were now regarded by the medical profession and by the public as insanity which, even fifty years ago, would never have been so classified. Secondly, asylums were no longer regarded with the horror and repugnance of other days, or as places of mystery and doom. But by far the most potent cause was the Government grant of 4s. weekly in aid of the maintenance of certified lunatic paupers. It was a direct premium for the manufacture of pauper lunacy, and a very questionable relief to parochial expenditure.

THE BURGH POLICE AND HEALTH (SCOTLAND) BILL.

The Convention of Royal Burghs in Scotland when discussing this Bill had before it a proposal that the sanitary provisions of the Bill should be made compulsory throughout

the country, and not in burghs only; but a counter-proposal, that the sanitary clauses should stand as they are, was carried by a large majority.

Small-pox appears to be subsiding in Glasgow, only four cases remaining in hospital. It is reported, however, that a new group of cases, chiefly from a printing-office in the city, has been discovered.

IRELAND.

(From our own Correspondent.)

QUEEN'S COLLEGES (IRELAND) COMMISSION.

THE commissioners appointed to inquire into the standard of education maintained in the Colleges, as to the honours and rewards distributed, the advantages offered by the Royal University, and the fees charged to students, commenced on the 5th inst. with the Belfast College; they next proceeded to Cork, and lastly to Galway. An immense deal of evidence—some of which was obviously outside the scope of the inquiry—was obtained, but on the whole very favourable to the Colleges, where the standard of education has been shown to be of a high character, and that every facility is given, more particularly as regards the medical curriculum, to students for obtaining a thorough knowledge of their profession. The commissioners will sit on Saturday next, the 21st inst., at the offices of the Commission, La Touche's Bank, Castle-street, at the hour of twelve o'clock at noon, for the purpose of continuing their inquiry; and they will be prepared to receive the evidence of any person tendering himself for examination whose testimony is pertinent to matters within the limits of the inquiry.

ROYAL UNIVERSITY OF IRELAND.

The second annual report of this university has recently been issued. In 1882 the number of persons who had passed through the various academic examinations of the universtty was 1688, and last year they increased to 2095. Of 212 candidates who presented themselves at the autumn final examinations in the Faculty of Medicine, 120 passed the examination for the degree in medicine or for the mastership in surgery, or the diploma in obstetrics. The receipts amounted to £35,014 18*s.* 4*d.*, and the expenditure to £30,204 5*s.* 10*d.*, leaving a balance in hand of £4810 12*s.* 6*d.*

ROYAL COLLEGE OF SURGEONS IN IRELAND.

An election for a member of Council in the vacancy caused by the resignation of Mr. Jacob will take place on Monday next, the 23rd inst. Mr. Rawdon Macnamara will be a candidate, and as there is no doubt that he will be unopposed, little interest may be expected as regards the result.

BELFAST DISTRICT LUNATIC ASYLUM.

During the past year 165 patients were admitted, making a total of 693 under treatment during that period. Of these, 132 were discharged and 34 died. Of the admissions, 132 were cases of first attack and 33 were readmissions. The deaths which occurred were equal to 6·6 per cent. on the daily average number resident, or 4·9 per cent. on the total number under treatment. The expenditure amounted to £12,127 13*s.* 5*d.*, showing a capitation cost of £23 16*s.* 6*d.*, and is an increase of eight shillings per head upon last year. Of the gross expenditure, £5022 4*s.* has been defrayed by the Government grant; and if £404 16*s.* 5*d.*, the amount of miscellaneous receipts, pay patients, &c., be deducted, it leaves a balance of £6700 13*s.* to be defrayed by the district rates, or £13 3*s.* 3½*d.* as the annual expense of each patient.

Dr. T. Nedley has been appointed surgeon to the Viceregal household, in the room of the late Dr. J. Stannus Hughes.

Dublin, June 17th.

PARIS.

(From our Paris Correspondent.)

HEREDITARY INSANITY.

ANOTHER victim of hereditary insanity may be added to the one noticed in a "special article" in THE LANCET of the 31st ultimo. In the present instance it is a young man named Menesclou, aged twenty-one years, who was about three years ago convicted of the murder of a girl of six years of age, after having committed the most atrocious outrages on her. At his trial, although the medical experts were divided as to the amount of responsibility to be laid to his charge on medical grounds, he was condemned to death, but the post-mortem examination revealed certain lesions of the brain, which seemed to justify the opinion of irresponsibility. Soon after this Menesclou's mother became insane, and is now a patient in the Salpétrière Asylum. His father has just died, and it is said that owing to mental peculiarities he was pensioned off at the Office of the Minister of Finance, where he had for many years been employed as an usher (*huissier*).

ENTERTAINMENT AT THE SALPÉTRIÈRE ASYLUM.

An entertainment was given last week to the inmates of the Salpétrière Asylum, where none but female patients are received, at which were present the staff of the asylum and other privileged guests, and to which MM. Faure, Got, Sivori, Delaunay, Saint-Germain, Mesdames Bartet, Leblanc, Paola Marié, Hamard, and other theatrical celebrities contributed their special talents.

RABIES IN PARIS.

At the last dog show, which has just been closed in Paris, a watch-dog was affected with incipient rabies, which was not even suspected. At the close of the show, however, the peculiar appearance of the animal attracted attention, and it was in consequence placed under the care of a veterinary surgeon. Unmistakable symptoms soon became manifest, and the animal died in a few days. Several cases of hydrophobia among dogs have been reported during the last week. Among others, a dog wandering about the streets at Clamart, near Paris, and affected with the terrible disease, bit no less than eighteen dogs, which were immediately destroyed.

THE LATE M. DUMAS.

It is in contemplation to raise a statue to the memory of the late M. J. B. Dumas, and a committee composed of members of the three Academies of Paris, of which the illustrious chemist was a member, has been deputed to take measures to put the project into execution. M. Pasteur has been fitly chosen president; and the Emperor of Brazil, who is a corresponding member of the Paris Academy of Sciences, has expressed his desire to form one of the committee. The successor to M. Dumas as permanent secretary to the Academy of Sciences is M. Jamin, Professor of Physics at the Faculty of Sciences. M. Jamin occupies the chair formerly held by the illustrious Cuvier.

THE CONGRESS AT THE HAGUE.

Drs. Brouardel, Hardy, and Bezançon have been designated to represent the Council of Public Hygiene of the Department of the Seine at the International Congress of Hygiene and Demography, to be held at the Hague on the 17th of August next.

Dr. Brouardel has been nominated President of the Committee of Public Hygiene of France, in the room of M. Wurtz, lately deceased.

Dr. Gustave Le Bon is charged with a scientific mission to India, to study the principal ancient architectonic monuments of that interesting country.

Dr. Simonet, physician to the Hôpital du Midi (hospital for venereal patients), died on the 6th inst., after a long illness, in the sixty-first year of his age.

Paris, June 17th.

EGYPT.

(From a Correspondent.)

THE past week has been taken up with the annual examinations at the Medical School of Cairo, and for this purpose the students have for the last three months been exempt from all lectures and nearly all practical work, in order to study the books and notes of lectures with which they are provided. The President of the Court of Examiners was chosen by the Minister of Public Instruction. Abbate Pasha has held this post for the past eighteen years, during which time he has paid frequent visits to England, and is not unknown to many of the heads of our profession in London. The examiners for medical students and pupil midwives comprised one Italian, two Englishmen, and four native doctors, while one native and one German examined the ten pharmaceutical students, and these were all chosen

by the committee attached to the Sanitary Department. In their report to the Minister of Public Instruction, it is pointed out by the examiners that the Government would be wise to show greater care in selecting students from the preparatory school to enter the medical profession, and that both boys and girls should be subjected to an entrance examination, the details of which must be settled by the sanitary department. It is also proposed that examiners in future should be able to ask questions in any way they think fit, instead of being rigidly bound down to a list of subjects which the students have been carefully committing to memory for months past. But the greatest reform proposed is that the entirely theoretical *vivâ voce* examinations of the present shall be supplemented by practical work at the bedside and in laboratories. It is only fair here to state that the director of the School of Medicine, Dr. Issa Bey Hamdi, has recently proposed several reforms in the internal management of the school, but they have not yet received the sanction of the Minister of Public Instruction. The result of the examination shows that of 128 medical students, divided into six classes, in each of which they remain one year, 108 satisfied the examiners, and twenty were referred to their studies for another year. The ten pharmaceutical students all received the necessary award of marks, whereas of sixteen pupil midwives fifteen were considered incompetent, and the remaining girl was proved to have obtained her knowledge by attending numerous confinements with her mother, a busy midwife in Cairo. These girl pupils are only taught by a midwife who has been dignified with the name of professor, and considering that they have received very little general education before entrance, and that they only remain two years at the maternity school, their intellectual condition is not to be envied. These midwives, until the formation of the new sanitary department, were always called "la keema," or lady doctors, and besides their obstetric functions, their duties were to attend all sick women and children, to certify the cause of death in the numberless cases where no doctor had seen a female patient alive, and even to give a medico-legal opinion upon cases of sudden death and suspected violence or poisoning. It is difficult to understand how the state of the Egyptian medical student can be distinctly ameliorated until he is allowed to learn something of modern science in a European tongue. Though his professors and teachers nearly all talk French, his own education has been grossly neglected, and his only literature is that of works translated some years ago into Arabic. Microscopes, laboratories, ophthalmoscopes, and all materials for practical demonstrations are not likely to be provided by the present Minister, whose chief fame is that of an astronomer and astrologer. The sixth year's medical students were found to consist of eleven not very bright youths, all hopelessly ignorant of ophthalmic surgery and the first sanitary principles, and none knowing more than a mere smattering of English and French.

The Government is sadly in need of doctors now for its manifold sanitary service, and therefore eight of these students will be allowed to act as paid house-surgeons and house-physicians at the hospitals of Alexandria and Cairo; but it is recommended that their certificates to practise shall be withheld until they shall have passed a practical and more thorough examination at the end of the ensuing twelve months. During this term of probation, those at Cairo will work immediately under the orders of Mr. H. M. N. Milton, late of St. Thomas's Hospital, who, a month ago, was appointed "médecin en chef" of Kasr-el-Aini Hospital.

There are as yet no symptoms of cholera in Egypt, though no one would at any time be surprised to hear of sporadic cases in different localities. Diarrhœa, dysentery, typhoid fever, and gastro-enteritis have lately increased, but there is no reason to suppose that the mortality is any greater now than in the month of June in previous years. The Sanitary Department has asked for the necessary support of the Ministry of the Interior to induce the head men of villages to declare the existence of human disease immediately it appears, instead of waiting until many deaths have occurred. Cattle plague is still present in Esneh, the southernmost province of Upper Egypt, and isolated cases have recently occurred in one of the districts of Lower Egypt, but there is now much less of the disease in the country than at any time during this year. It is greatly to be feared that some of the proposed sanitary reforms will meet with blocking and obstruction if it is definitely decided to replace Mr. Clifford Lloyd by a native at the Ministry of the Interior.

Cairo June 9th, 1884.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords, on Tuesday, the Cruelty to Animals Act Amendment (No. 2) Bill, which aims at putting a stop to the cruelties practised on pigeons intended to afford sport to pigeon-shooters, was read a second time.

Dr. Crichton Browne.

On Friday, Lord Carlingford disclaimed all responsibility for Dr. Browne's report on over-pressure in schools, which he intimated had been thrown at the head of the Education Department.

In the House of Commons, on Friday, Mr. Mundella stated that the reports from inspectors and others were all in contradiction of Dr. Browne's conclusions.

On Monday, during the debate on the Education Vote, a great deal was said about the report, and Mr. Mundella quoted with ridicule some of Dr. Browne's recommendations. He declined to produce the document as from the Education Department, but agreed that it should be printed if it were moved for. Lord George Hamilton subsequently gave notice that he would move for it.

The Indian Medical Department.

Mr. Cross informed Mr. Gibson that in this service there was one administrative officer to twenty-seven executive officers. In 1880, as shown in the Blue Book (2921) of 1881, page 283, there was a reduction of the administrative officers. In 1880 the limits of age for compulsory retirement were fixed at fifty-five years for the new rank of brigade surgeons and surgeons-major, and at sixty years for surgeons-general and deputy surgeons-general, instead of at fifty-five and sixty-five years respectively. The effect of lowering the age for compulsory retirement in the higher grades must be to quicken, not to retard, promotion.

The Lunacy Commission.

On Tuesday, Sir W. Harcourt replied to Sir E. Wilmot that he knew nothing of a publication entitled "The Bastilles of England." Any complaint against the Lunacy Commissioners should be addressed to the Lord Chancellor.

Midwifery Fees.

On Thursday, in reply to Dr. Farquharson, Sir C. Dilke said the attention of the Local Government Board had been drawn to an article in a medical journal narrating the circumstances under which "Mr. McCarty, medical officer of the River Lee district of the Shifnal Union, Salop, attended a young woman in her confinement, which was accompanied by so much difficulty and danger as to require further medical aid and instrumental help, ultimately terminating in her death." It appears that an order for the attendance of a medical officer was twice refused by the relieving officer. The applications were made by the father of the woman. The medical officer refused to make out the order on the ground that he did not consider it "an urgent case for relief"; and the refusal of the board to pay the fee was based on the opinion that the parents of the woman were in a position to pay for medical attendance. The Local Government Board saw no objection to presenting the correspondence that had taken place on the subject.

Poisonous Patent Medicines.

Mr. Mundella stated to Mr. Warton that the Government Bill dealing with the sale of poisonous patent medicines was prepared. The Lord President of the Council was in communication with the Lord-Lieutenant of Ireland as to the desirability of extending it to Ireland, and as soon as that point had been settled the Bill would be introduced in the House of Lords.

The Medical Bill.

Mr. W. H. Smith would on Monday ask the Prime Minister whether, having regard to the great importance of this Bill, as it may affect medical education, he would name an early day for proceeding with the second reading.

Bilboa.

Dr. Cameron will on Monday put a question as to the provision of hospital accommodation for British seamen at Bilboa.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council on the 12th inst., the following Member was elected a Fellow of the College:—

Coombe, Robert Gorton, L.S.A., Burnham, Essex.

The following candidates, having passed the required examination, received the diploma in Dental Surgery at a meeting of the Board of Examiners on the 19th inst.:—

Crank, Peter, Brixton.
Norris, Edward Lewington, Brighton.
Saunders, Herbert Sedgwick, Upper Tooting.
Skipp, George Nash, St. Martin's-lane.
Stainer, Robert William, Finsbury-park.
Trott, George William, Exeter.

Three candidates failed.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 12th inst., the following degrees were conferred:

DOCTORS OF MEDICINE.—Donald M'Alister and George Parker, St. John's; George Newton Pitt, Clare; Richard Stanley Taylor, Pembroke; Richard Norris Wolfenden, Christ's; Cecil Yates Biss, Downing.

DOCTOR OF MEDICINE (by incorporation).—Alexander M'Alister, from Trinity College, Dublin, incorporated at St. John's College.

BACHELORS OF MEDICINE.—George Augustus Bolton, Trinity; Wilson Pash, Pembroke; Harry Groom, Frederick Henry Wigmore, and William Groom, Magdalene; Hector William Gavin Mackenzie and James Herbert Hawkins Manley, Emmanuel; Wilfred William Ernest Fletcher, George Bernard Hoffmeister, Llewellyn Jones-Bateman, John Scott, George Frederick Wellsford, and John Flasby Lawrence Whittingdale, Gonville and Caius; Henry Walter Pigeon, Christ's.

BACHELORS OF SURGERY.—George Augustus Bolton, Trinity; James Herbert Hawkins Manley, Emmanuel.

COLLEGE OF PHYSICIANS IN IRELAND.—At the June examinations the following candidates obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Charles R. Battersby, James Joseph Bolger, Frederick Brentnall, Charles Edward Fitzgerald, Diego Gannon, John King Irwin, John Bentley Mann, Francis Bernard Manning, Andrew Joseph O'Flanagan, John Patrick O'Riordan, John Soady, Edward Churchill Stack.

MIDWIFERY.—Charles R. Battersby, James Joseph Bolger, Frederick Brentnall, Diego Gannon, James Sullivan Green, John King Irwin, James Lennox, Francis B. Manning, Andrew Joseph O'Flanagan, John Patrick O'Riordan, Edward Churchill Stack.

The undermentioned has been admitted a Member:—

John Molony.

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on June 12th:—

Deeble, Stephen Lawson, Crescent, Mornington-road.
Gubb, Alfred Samuel, Newman-street.
Hodgson, Ralph, St. Bartholomew's College.
Jackson, William Edward Gillson, Addington-street.
Llewelyn, Ithel Penderel, Brunswick-square.
Newey, William Edward, Parade House, Dudley.
Tuck, Harry, Brighton-road, Surbiton.
Weaver, William George, Great Smith-street.
Woolby, James Balls, Woburn-place.

The following gentleman also on the same day passed the Primary Professional Examination:—

Jones, Evan, London Hospital.

THE Oxford Local Board have accepted the tender for the erection of an infectious diseases hospital at a cost of £7258.

AT a meeting of the Sunderland Town Council on the 11th inst. it was decided to purchase for £5000 a site of twelve acres upon which to erect a fever hospital.

THE Archbishop of York has consented to preside at a meeting of the Sanitary Association to be held at Hull on July 3rd.

THE new Children's Hospital at Sunderland, plans for which are in progress, will have a frontage of 200 feet, and afford accommodation for sixty beds.

"OUR SCHOOLS AND COLLEGES."—The Queen has, we are informed, accepted copies of Captain Dumaresq de Carteret-Bisson's recent volumes, which are dedicated to the late Duke of Albany and H.R.H. the Duchess of Albany.

ST. MARY'S HOSPITAL.—Her Royal Highness Princess Louise, Marchioness of Lorne, has promised to present the prizes to the students and open the new wing of the hospital, containing seventy additional beds, on Wednesday, July 2nd, at three o'clock.

AT the Liverpool City Police-court on the 9th inst. three men described as yeast importers were committed for trial on a charge of pouring poison—namely, carbolic acid—on yeast consigned to a rival dealer.

THE CITY CORONERSHIP.—At the recent election of a City coroner, Mr. Langham received 95 and Mr. Hosford 85 votes, the legal candidate thus proving successful by ten votes. There were twelve applicants for the vacant post.

IN the list of successful candidates at the recent general examination of students of the Inns of Court, we notice the name of John Percival Hunt, M.D., F.R.C.S., late A.M.D.

THE annual festival dinner of the Poplar Hospital for Accidents was held last week, when a brief statement of the work done during the past year was made and increased pecuniary support appealed for.

THE ROYAL SOCIETY.—Prof G. J. Allman, Prof. J. B. Baltour, Prof. John G. M'Kendrick, Dr. Arthur Ransome, and Prof. Charles S. Roy were at the recent annual meeting elected Fellows of the Royal Society.

DISEASED MEAT.—At the Bradford Police-court recently, two men, named Smith and Whalley, were each fined £20 and costs, or in default three months' imprisonment with hard labour, for exposing diseased meat for sale. The prosecution alleged the meat was intended for sausages.

THE managers of the Metropolitan Asylum district, finding it necessary, owing to the increase in the number of small-pox cases at the East-end of London, to acquire additional accommodation, have, with the sanction of the Local Government Board, taken on lease a hospital belonging to the Poplar Board of Works.

POISONING BY TINNED SALMON.—At an adjourned inquiry recently held at Wolverhampton touching the death of two persons, who died on the 21st ult. after having partaken of a hearty supper of tinned salmon, the jury returned a verdict that death was caused by poisoning arising from the decomposition of the food which they had eaten. A minute portion of the salmon given to mice caused their death in a few hours.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the recent meeting of the members of this Association Dr. Kenyon read a paper on Water Analysis, giving the results which might be expected to be obtained from analysis of water under various conditions and by various processes. Mr. F. Vacher also read a paper upon Diseases due to the Pursuit of Certain Trades, and at the close an interesting discussion took place.

PRESENTATIONS.—Dr. W. Wickham has been presented with De Quincy's works, as a mark of appreciation of his lectures in connexion with the St. John of Jerusalem Ambulance Association.—On the occasion of his leaving the neighbourhood, Mr. E. F. S. Green, M.B., C.M., was last week the recipient of an illuminated address accompanied by a silver tea and coffee service, salver, &c., from the inhabitants of Alderton, Suffolk, and the neighbouring parishes, of which he has been medical officer for the past seven years.

THE MISSION HOSPITAL AND DISPENSARY AT CHIN-CHEW.—The report of this hospital, which is in connexion with the Presbyterian Church of England, has been issued for 1883. The number of cases coming for treatment during the year was: in-patients, 576; new out-patients, 3688; old patients who returned for medicine, 10,030; and patients visited at their own homes, 220. It is gratifying to note that, although the great majority of the cases were from the working class, a larger number of the patients during 1883 belonged to the upper classes than in previous years.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination of local surveyors and inspectors of nuisances, held on June 5th and 6th, twenty-three candidates presented themselves. The Institute's certificate of competency to discharge the duties of local surveyors was awarded to W. H. Radford, J. Bowman Wilson, Charles Gilby, and W. Tattersall; and to discharge the duties of inspectors of nuisances, R. Gibbs, G. W. Joblings, Kenneth Cameron, T. S. Ainge, T. Turner, R. Jeffery, J. Parker, J. Mallinson, W. A. Shadrake, W. C. Beck, T. Haslam, F. T. Paulson, J. Whyte, A. Sutcliffe, and C. J. Easton.

UNHEALTHY HOUSES.—At the Southwark Police-court, two owners of insanitary houses were recently fined each £60 and costs amounting to twelve shillings. At the Thames Police-court, another property owner was ordered to put his house into repair within twenty-one days, and was mulcted in costs amounting to £4 4*s*. In the first cases repeated notices from the vestry under the Metropolitan Management Acts had been disregarded.

THE PHARMACEUTICAL SOCIETY AND THE SALE OF POISONS.—A provision dealer at Sheffield was on the 10th inst. prosecuted by the Pharmaceutical Society for selling retail poison, to wit opium, the bottle containing which was not distinctly labelled with the name of the article and the word "poison," and with the name and address of the seller of the drug, contrary to the provisions of the Pharmacy Act of 1868. A child to whom the mixture had been administered by the purchaser had died. The defendant was fined £1, and £2 costs.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—The twenty-first annual meeting of this Society was held in the board-room of the Bradford Infirmary on Tuesday evening, June 10th, 1884. The register of membership contained the names of seventy-three gentlemen. The funds in hand were £160; and the books in the infirmary library about 2100 volumes. Dr. David Goyder was elected president for the year 1884–5; Mr. T. C. Denby, treasurer; Dr. Rabagliati and Mr. Wilmot, secretaries; Messrs. Miall, Dunlop, Mossop, and Hime, members of council; Messrs. Spence and Phillips, pathologists; and Drs. Foster and Whalley, auditors.

THE BOYLSTON PRIZES.—The questions proposed for the year 1885 are the following:—1. The Alleged Recent Reappearance of Intermittent Fever in New England; its History and the Pathology of the Disease—prize, $250. 2. The Best Preliminary Education for the Study of Medicine—prize, $200. The questions proposed for the year 1886 are:—1. The Influence of the Soil as a Factor in the Causation and Spread of Typhoid Fever—prize, $350. 2. The Relation of Hospitals to Medical Education—prize, $200. The essays should be sent in before the first Wednesday in April of each year. Further information may be had of Dr. W. F. Whitney, Harvard Medical School, Boston.

MUSSEL POISONING.—Several cases of poisoning by mussels, one of them proving fatal, were reported by the *Port Elizabeth Telegraph* of the 17th ult., quoting from the *Argus*. The symptoms are described by the sufferers and eye-witnesses as follows:—A deadly faintness and sense of paralysis pervade the whole frame, and the fingers and toes are continually opening and shutting; the sense of sight is affected, and a greenish fluid is vomited by the patient. The mussels through which most of the affected persons were poisoned were the black oblong ones which adhere to the rocks, and the *Argus* concludes that all kinds of mussels, whether white or black, are, like oysters, unwholesome during certain months.

DR. BARNARDO'S HOMES.—The annual meeting in connexion with these institutions for the reception of destitute children was held last week, when a report of the work accomplished during the past year was given. There are now twenty-three different institutions comprehended under the title of Dr. Barnardo's Homes. From 1866 to March 31st, 1884, 5633 boys and girls had actually been rescued; of these, 1812 were admitted during the year, including those who were on the books on the 1st of April, 1883; 577 girls and 702 boys were still in the institutions, while 2490 other children received education in whole or in part during the year. Thus 4302 children were in some degree benefited during the past year. The total receipts during the year amounted to £60,465. The bankers' account was overdrawn on the 31st of March by £2293 12*s*. 6*d*. This overdraft now exceeds £8000.

DUNDEE ROYAL INFIRMARY.—The annual meeting of this institution was held last week, ex-Provost Rough presiding. From the report it appeared that the number of cases treated in the institution during the year was 1752, against 1913 the previous year. The average daily number of in-patients was 132. The number of deaths was 136, or 7·7 per cent., against 8·7 per cent. in the previous year. The children's ward which was opened had been a great success. The total admissions to the Convalescent Home at Barnhill was 610, against 490 last year. The revenue amounted to £7450 10*s*. 5*d*., and the expenditure to £7883 11*s*. 10*d*., leaving a deficiency of £438 1*s*. 5*d*., and making up the accumulated deficit to £1486 4*s*. 8*d*. It was explained, however, that a great deal of the expenditure had been on repairing and re-furnishing the institution. It was resolved to renew the west front of the building at a cost of about £1300.

INTERNATIONAL HEALTH CONFERENCES.—Under the auspices of the Social Science Association, the following questions will be discussed:—On June 26th, at 3 P.M.: "What conditions are essential for a healthy dwelling, whether in an urban or in a rural locality, and how far is it desirable that they should be rendered compulsory by legislation?"—to be introduced by Mr. H. H. Collins, F.R.I.B.A. "What, if any, restrictions in the interests of health should be enforced in connexion with the employment of girls and women in workshops and factories?"—introduced by J. H. Bridges, M.B. On June 27th, at 3 P.M.: "Is it desirable that notification of infectious disease should be obligatory?"—to be opened by G. W. Hastings, Esq., M.P. "Is it desirable to legislate further respecting the duties of medical officers of health?"—introduced by A. H. Brown, Esq., M.P.

THE HOUSING OF THE LABOURING CLASSES.—It is understood that Sir Charles Dilke has received a report from Mr. J. T. Harrison, one of the engineering inspectors of the Local Government Board, relative to the working of the Artisans and Labourers' Dwellings Improvement Act in England. The inquiries were confined to London, Birmingham, Wolverhampton, Liverpool, Norwich, Swansea, Walsall, and Nottingham, which are the only places where improvement schemes under the Acts have been carried out. The report shows that the working of the Acts has been very generally destructive of the dwellings of the poor, and hardly in any degree constructive, and concludes by saying that the generally expressed unwillingness of the authorities who have carried out these schemes to engage in further enterprises of a similar character is probably the best answer that can be given to the question whether the several schemes were justified, considering the resources of the authorities.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

EDWARDS, DANIEL THOMAS, M.R.C.S., L.S.A.Lond., has been re-appointed Medical Officer for the Pentyrch District of the Cardiff Union.

GREENLEES, J. DUNCAN, M.B., C.M.Ed., has been appointed Junior Assistant Medical Officer to the Cumberland and Westmorland Asylum, Garlands, Carlisle.

HARRISON, THOMAS, M.B., M.Ch.Dub., has been appointed District Surgeon to the Sydney Hospital.

LE CRONIER, J., M.D., has been appointed Consulting Surgeon to the Jersey General Dispensary.

M'NEILE, J. PATRIC, M.D.T.C.D., L.R.C.S.I., has been reappointed Public Analyst for the Borough of Tiverton.

MASON, WILLIAM, L.R.C.P.Ed., L.R.C.S.Ed. has been appointed Medical Officer for the Second District of the St. Austell Union.

MITCHELL, HENRY ST. JOHN, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Resident Medical Officer to the Melbourne Hospital for Sick Children.

MONCKTON, FRANCIS ALEXANDER, M.R.C.S., has been appointed Medical Officer to the Kumara Hospital, New Zealand.

PATERSON, DONALD, M.B., C.M.Ed., has been appointed House-Surgeon to the Cardiff Infirmary, vice P. Rhys Griffiths, M.B.Lond., resigned.

RAMSDEN, WALTER THURMAND, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Yoxall District of the Lichfield Union.

RENDELL, HERBERT, M.B., M.Ch.Ed., has been appointed Assistant-Physician to the North-Western Hospital, Haverstock-hill.

RENWICK, GEORGE JAMES, M.B., C.M.Ed., has been appointed Honorary Physician to the Sydney Hospital for Sick Children.

RICE, GEORGE, M.B., C.M.Ed., has been appointed Medical Officer to the South Metropolitan Schools, Sutton.

SINCLAIR, JOHN, L.K.Q.C.P.I., L.F.P.S.Glas., has been appointed Medical Officer for the Slaidburn District of the Clitheroe Union.

STATHERS, G. NICHOLSON, M.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer of Health to the No. 2 Sanitary District of the Wycombe Union.

WILLIAMS, W. MONTAGU VENABLES, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Prees District of the Wem Union.

Births, Marriages, and Deaths.

BIRTHS.

ABBOTT.—On the 11th inst., at Noel House, Braintree, Essex, the wife of Charles E. Abbott, M.R.C.S., of a son.

ANDREW.—On the 29th ult., at The Pines, Englefield-green, the wife of George Andrew, F.R.C.S.Eng., of a son.

CHRISTISON.—On the 13th inst., at Rodney-street, Liverpool, the wife of David Christison, M.D., of a daughter.

DENNE.—On the 17th inst., at Cradley-heath, Staffordshire, the wife of T. V. de Denne, M.R.C.S., of a daughter.

FRETZ.—On the 22nd ult., at The Square, Basseterre, St. Kitts, the wife of W. H. Fretz, M.R.C.S., L.R.C.P., &c., District Medical Officer, Nevis, West Indies, of a son.

OLIPHANT.—On the 10th inst., at Pau, the wife of William Bruce Oliphant, M.D.Ed., of a daughter.

THURLAND.—On the 15th inst., at 1, Wilmington-square, W.C., the wife of F. E. Thurland, M.R.C.S.E. & L.S.A.Lond., of a son.

WHITTLE.—On the 16th inst., at 65, Dyke-road, Brighton, the wife of Ed. George Whittle, M.D.Lond., of a son.

MARRIAGES.

ASHMEAD—WALKER.—On the 17th inst., at St. John's Church, Edinburgh, by the Rev. G. J. Cowley Brown, M.A., George Ashmead, L.R.C.P.Ed., L.R.C.S.Ed., of Brierley Hill, Staffordshire, to Helen Wilhelmina, youngest daughter of the late Captain Henry Walker, of Castle Stuart, Inverness-shire.

BOWLING—BUTLER.—On the 10th inst., at St. James's, New Hampton, by the Rev. E. W. Bowling, assisted by the Hon. and Rev. Henry Bligh, Thomas Bowling, of New Hampton, Surgeon, to Frances Jane, second daughter of the late Lieutenant-Colonel Butler, 36th Regiment, and of Mrs. E. Butler, of Murree House, New Hampton.

FRASER—CHITTY.—On the 12th inst., at Christ Church, Clifton, by the Rev. Horace Meyer, Vicar, James Alexander Fraser, M.R.C.S., L.R.C.P.Lond., to Helen Alves, eldest daughter of Colonel. W. T. Chitty, H.M. Bombay Staff Corps. No cards.

HARKER—BETTINSON.—On the 11th inst., at St. Firmin's, Thurlby, Tom Harker, M.B., M.R.C.S., of Brook Lodge, Bourne, only son of the late Robert Harker, of Pateley Bridge, Yorks, to Lucy Jane, second daughter of Richard Bettinson, of Thurlby Manor, near Bourne, Lincolnshire.

SILK—BATCHELER.—On the 12th inst., at St. Botolph's, Northfleet, John Frederick William Silk, M.B., of Highgate, second son of John Alexander Silk, of Gravesend, to Catherine Jane, daughter of Horace Pettus Batcheler, late Captain H.M. 80th and 73rd Regiments, and step-daughter of George Edward Sharland, of The Laurels, Gravesend.

TENCH—BROWN.—On the 5th inst., at St. Giles's Church, Reading, by the Rev. C. J. F. Bourke, Vicar, assisted by the Rev. Chancellor Dranes and the Rev. Canon Baynes, Charles H. Tench, M.D., L.R.C.S.I., second son of the late Samuel Tench, Esq., J.P., of Ballyhealy House, co. Wexford, to Annie J. Cranstoun, second surviving daughter of the late Andrew Brown, Esq., M.D., of Weymouth.

WOOLLETT—PITTIS.—On the 10th inst., at Wymering, Cosham, Sidney Winslow Woollett, M.R.C.S., of Kessingland, Lowestoft, to Mary A. I. Pittis, of Cosham, Hants.

DEATHS.

BRANSON.—On the 16th inst., at Tavistock-road, Westbourne-park, Cecil L. S. Branson, M.R.C.S., L.R.C.P., and late of Her Majesty's 96th Regiment, fifth son of the late James William Branson, Esq., Barrister-at-law, Middle Temple, and late of Madras, in his 37th year.

BROWN.—On the 13th inst., at Grantham House, Grantham, seven days after the death of his wife, Jos. J. A. Brown, M.D.Oxon., aged 76.

BUSH.—On the 11th inst., at Glenbourne, West End, near Southampton, Thomas G. Bush, M.R.C.S. & L.S.A.Lond., only son of the late Thomas Bush, Esq., of Bradford, Wilts, aged 69.

CLAPHAM.—On the 3rd inst., at Brussels, Ada, wife of Crochley Clapham, M.D.Brux., M.R.C.P., aged 29.

CRESSWELL.—On the 12th inst., at Dowlais, Glamorgan, Jane Catherine, the beloved wife of Pearson R. Cresswell, F.R.C.S.

DIXIE.—On the 12th inst., in London, very suddenly, Wolstan Fleetwood Dixie, M.D., fourth son of the late Sir Alexander Dixie, Bart., Captain R.N., of Bosworth-park, Leicestershire, aged 57.

GOODEVE.—On the 17th inst., at Cook's Folly, near Bristol, Henry Ives Hurry Goodeve, M.D., F.R.C.P., F.R.C.S., J.P., of Gloucestershire, aged 77.

NORTH.—On the 6th inst., at Warrington-gardens, Maida-vale, John North, M.R.C.S., and J.P. for the county of Brecknock, in his 75th year.

TUCK.—On the 24th ult., at Batsford-road, St. John's, New-cross, S.E., Frank Sextus Tuck, M.R.C.S., formerly of Aylesford, near Maidstone, aged 35.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 19th, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 13	30·33	E.	64	57	96	75	55	..	Hazy
,, 14	30·26	N.E.	62	57	117	72	57	..	Cloudy
,, 15	29·85	S.W.	60	53	101	61	53	..	Hazy
,, 16	29·21	W.	58	51	98	64	51	..	Cloudy
,, 17	30·19	N.	57	51	92	63	50	..	Overcast
,, 18	29·21	N.E.	56	55	87	63	50	..	Cloudy
,, 19	29·26	N.E.	59	55	80	65	54	..	Overcast

Medical Diary for the ensuing Week.

Monday, June 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Sir Henry Thompson: On Some Important Changes in connexion with the Surgery of the Urinary Organs.

Tuesday, June 24.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Professor Flower: On the Size of the Teeth as a Character of Race.—Mr. O. A. Shrubsole: On Flint Implements found at Reading.—Dr. S. M. Curl: Phœnician Intercourse with Polynesia.—Mr. M. J. Walhouse: A Hindu Prophetess.—Mr. J. E. Greenhill: Exhibition of Palæolithic Implements recently found in the north-east of London.

Wednesday, June 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, June 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, June 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, June 28.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

MEDICAL CERTIFICATES AND CORONERS.

Tongoy was strictly entitled, and even enjoined, by the Births and Deaths Registration Act to give a medical certificate of the cause of the death referred to. At the same time, if the certificate described the death as occurring "suddenly from aortic disease and hypertrophy of the heart," it would be the duty of the registrar, in accordance with his instructions, to refer the case to the coroner previously to its registration, as the responsibility of deciding upon the necessity or otherwise for holding an inquest rests alone with that officer. In all cases of sudden death, or of death from any form of violence, we therefore hold it to be desirable that medical practitioners should withhold their certificate until assured that the case has been referred to the coroner, and that he has decided an inquest to be unnecessary. Medical practitioners should carefully avoid, in their own interest as well as in that of the public, the possibility of a suggestion that a certificate was given in order to evade the reference of the case to the coroner.

"THE CIRCINATE ERUPTION OF THE TONGUE CALLED 'ETAT LICHENOIDE' BY GUBLER, AND 'LA SYPHILIS DESQUAMATIVE DE LA LANGUE' BY PARROT."

To the Editor of THE LANCET.

SIR,—The article in THE LANCET of May 10th under the above heading has interested me from the fact that it has been my fortune to meet with several cases of the kind recently. In none of them was there a history of syphilis, whilst in all there appeared to be a tendency to disorder of the stomach or bowels. In two adults at one period of the disease there was muco-enteritis lasting for weeks. In the case of a lady over forty years of age, who "had noticed the spots on her tongue at times for a long while," there were attacks of sickness at the stomach, accompanied by the vomiting of mucus resembling the white of an egg. After trying many plans of treatment without decisive result, I happened to give salicine for another purpose; and there was such immediate improvement in the condition of the tongue that I began to use the remedy specially with reference to it. My plan is to evacuate the bowels pretty thoroughly by means of a saline cathartic rich in chlorides, as, for instance, Friedrichshall water, given in the morning before breakfast, and then to give full doses of salicine for several days. This cuts short the eruption promptly, and when used repeatedly during the attacks lengthens the intervals of recurrence, until it has seemed to me that a perfect cure has been effected, there having been no appearance of the disease for many months.—I am, Sir, yours truly,

Lyons, New York, U.S.A., May 30th, 1884. M. A. VEEDER, M.D.

ADMINISTRATION OF BROMIDE OF POTASSIUM.

To the Editor of THE LANCET.

SIR,—I have lately been treating a case of petit mal with gradually increasing doses of bromide of potassium, but have begun to experience some little difficulty in inducing the patient to continue the use of the drug, owing to the disgust which its intense briny flavour has occasioned, although disguised according to the approved formula by compound orange infusion. I should be very grateful to any of your readers who would assist me out of the dilemma of either "pickling alive" the patient, as I am accused of doing, or discontinuing the bromide.

I am, Sir, yours truly,

June 16th, 1884. BROMIDE.

M.R.C.S., L.S.A.—1. We have often pointed out the unprofessional character of such advertisements.—2. The holder of the Apothecaries' licence simply is certainly not entitled to style himself "Dr."

"BURIED ALIVE."

To the Editor of THE LANCET.

SIR,—Perhaps you may be able to find space in your journal for a few remarks concerning an explanation of a case of supposed premature burial offered by a medical man for the benefit of the clergyman who first reported the interesting case in your number of May 24th, the firm reliance placed by the latter upon the explanation, which appears to me so inadequate, being my excuse for troubling you.

The explanation, it will be remembered, attempts to account for the position of the body—viz., "The right arm and leg hanging over the left side of the coffin, and the face lying sideways or nearly downwards, the right knee being placed against the north side of the grave, outside the coffin"—by supposing this amount of distortion to be produced by the contractions of rigor mortis, which rigor was delayed for "three clear days after death." Now, apart from the fact that rigor mortis usually appears within six hours after death, and Dr. Ferrier in Quain's Dictionary of Medicine says that it has never been known to be delayed more than one whole day after death, these post-mortem contractions of the limbs are not very common occurrences, and when present usually follow death from some exhausting diseases—e.g., cholera, strychnia poisoning, and the like; and if your correspondent will look up the subject of cadaveric rigidity, he will, I think, find that in these cases the rigor mortis occurs very early, the contractions sometimes happening before the heart has ceased to beat. With regard to a second explanation, upon which Mr. Williams would have us place as much reliance as upon the former, and towards which the vicar in your last number appears inclined to lean—viz., that of supposing this position to have been brought about by the presence of air in the tissues, the natural result of decomposition,—I think scarcely any comment is necessary. The idea of gas generated in the cellular tissues flexing the limbs and distorting the trunk in the manner stated, to say nothing of forcing up the coffin lid, which the vicar now tells us was firmly screwed down, is really too preposterous to be entertained for a moment. Surely, were this the case, we should expect to find these post-mortem distortions of the body the rule rather than the exception, and should be greatly surprised if on opening a coffin some time after burial we ever found a corpse in anything like the same position in which it was originally placed.

That premature burial is now practically impossible I suppose most will allow, and possibly someone may yet satisfactorily account for the case in question; but the explanations offered by the correspondent in your issue of the other week appear to me to be so grossly inadequate that I am surprised that you have not been inundated with letters exposing their futility in terms much clearer than mine.

I am, Sir, yours truly,

CHAS. ELGOOD, M.B.Univ.Lond.

North Eastern Hospital for Children, June 14th, 1884.

To the Editor of THE LANCET.

SIR,—I send you privately names and addresses by means of which you can test, if you please, the accuracy of the following statements, which I forward for insertion in your journal.

Some years since, a young man who had been attacked by small-pox was declared by the medical man to be dead, and was laid out for burial. The nurse, however, on paying a visit to the supposed corpse, thinking there was something uncorpse-like about its appearance, put a wineglass over the mouth, and returning in a quarter of an hour found it dimmed with breath. He was resuscitated, and, so far as I am aware, is still living. He would now be about forty-five. He is a farmer.

A mother and her baby were ill of small-pox, and seemed likely to die. The grandmother, however, made the nurse promise that if death appeared to ensue, and even if the medical man pronounced either or both to be dead, she would put additional blankets on the one or both, and leave them so till her (the grandmother's) return, which would not be till the next day. They both appeared to die, and were declared dead by the doctor; but the nurse did as she had promised, and the next day when the grandmother returned they were both alive, and were both living not very long since.

Some twenty years ago, I was told that about forty years previously a young man in a parish with which I was acquainted was put in a coffin as a person dead of small-pox; but when the bell was tolling for his funeral, and he was about to be "screwed down," he got up and vacated the coffin, and lived several years afterwards.

In a town where I was brought up, a woman was nearly buried alive through having gone into a trance on being frightened by a young lady, who had put on a white sheet and pretended to be a "ghost." For years she was liable to long spells of insensibility, from which nothing could rouse her.

The haste with which small-pox corpses are disposed of nowadays is to be deprecated. They are usually buried within twelve hours of their supposed deaths, and the cases I first mentioned show with what very probable results. The only sure proof of death is decomposition, and a law ought to be passed forbidding burial until signs of it have appeared. Not very long since I was in a churchyard where a drain was being made round the church, and was not a little struck by the horrified look of a labourer, who came to the vicar and stated that they had come on a skull face downward, which, he said, put it beyond doubt that the person it had belonged to had turned in his coffin after burial. I am, Sir, yours faithfully,

June 18th, 1884. B. A.

"UNHOLY ALLIANCE WITH UNQUALIFIED PRACTITIONERS IN BIRMINGHAM."

To the Editor of THE LANCET.

SIR,—The paragraph under the above heading in THE LANCET of to-day seems to require some explanation from me.

Some weeks ago, owing to circumstances of which I know very little, and with which I had nothing whatever to do, the dispensary, formerly conducted by Dr. Fleming, passed into the hands of Mr. Townson, a gentleman without a diploma; and I was asked whether I would visit patients at their own homes until a transfer had been made to a qualified man. This I consented to do; and I venture to think that many poor people have been the better for my having adopted that course. On May 29th last I was asked to visit the child on whom the inquest was held a few days later. On going to the house I found the patient suffering from a complication of disorders. There were three or four—I forget which—well-developed vaccine vesicles on its arm, and I was told that it had been taken to the public vaccinator that day to be certified, and had been sent home as too ill to be out of doors. During my stay in the house the child had a paroxysm of whooping-cough, followed by convulsions, and seemed to be in a very bad way. Now, I wish it to be carefully noted that the whooping-cough was in the second or paroxysmal stage, and therefore, in accordance with my own experience, as well as with the statements of the best authorities, the disease must have existed at least fourteen days. Yet I am found fault with for saying that, to the best of my belief, the whooping-cough had existed fourteen days! How, in the name of all that is sensible, could I have done otherwise? The base insinuations as to my motives made at the inquest, to which I was not summoned, and which therefore I was not present, I repudiate with scorn. The reports of the inquest in the public papers were not only imperfect, but, as I have since learned, very inaccurate. The coroner was made to say what he never said, and a considerable part of what occurred was omitted. There was no proof whatever of neglect on the part of the mother, and yet the intelligent jury returned a verdict of manslaughter against her and Mr. Townson, to whom the child had been first taken, and who had had nothing else to do with it. When the coroner pointed out that such a verdict was absurd, the jury again returned to their deliberations; and in their retirement, I have no doubt, felt very much perplexed as to why they were there at all, as well as puzzled as to the best means of getting away. It occurred to them, I suppose, at the last moment, that there was no one left to censure but myself, and I was censured accordingly in my absence.

On the strength of the imperfect reports referred to above, there appeared in the public papers various letters, breathing more or less of indignation against me, and one especially, signed "Surgeon," filled with flatulent threats of vengeance and of suspension by the Medical Council. That letter might, perhaps, have been allowed to sink into the oblivion it deserves; but, Sir, even gnats can sting, and more ignominious creatures than these can give pain and annoyance to a tired and persecuted spirit. As to the numerous so-called dispensaries, scattered pretty thickly about Birmingham, and kept for the most part by unqualified men, I am not responsible for them, and have never had anything to do with them beyond the slight connexion with the one mentioned above, and even that will be at an end before this letter appears in your columns.

But here comes the head and front of my offending, the crime for which I am now suffering penance. Having entered the medical profession somewhat late in life, I came six months ago to Birmingham, knowing no one, and almost without money. Such being my condition and circumstances, I could only hope to get a practice among the poorer classes; and this I expected to do by making my fees low enough to meet the wants of those who would otherwise go without medical advice altogether. But the manner of starting this practice was unfortunate. The preliminary steps were taken by an agent, and even after I came he was allowed to do what he, no doubt, thought was for my advantage. As nothing dishonourable was done, I feel bound to take upon myself the responsibility of the course pursued. To make a clean breast of the matter, the place was called a dispensary, and circulars were distributed to notify its establishment, though my name appeared on none of them. For this I have been refused the membership of the Birmingham Medical Institute, not in the ordinary way, which would have been quite fair, but in a way which seems to me to have been very extraordinary indeed. I have been misrepresented in the public papers and insulted by a neighbouring medical man. I venture to think, Sir, that my practice is carried on in as scientific a way as that of any practitioner in Birmingham. My medical training was received in a city where the duty of dispensing medicines is left to druggists; and I was not likely to come here as a mere seller of physics. Often my patients, to their astonishment no doubt, receive no medicine at all; and often, when they do receive it, the cost to me of the medicine given is more than the small fee I receive. I give to my patients the benefit of all that I have been able to learn from the best of teachers and the best of books, and yet I am treated as an outlaw, and threatened by persons of "Surgeon's" calibre with utter ruin and extermination.

I am, Sir, yours truly,

WM. J. NOTLEY, M.D., B.A.Lond.,

Coventry-road, Birmingham, June 14th, 1884.

Dr. Everest.—We regret that our arrangements will not allow of the devotion of the amount of space required for the series of articles.

MEDICAL MEN IN PROPORTION TO POPULATION.

La Gazzetta degli Ospitali gives the following statistics as the proportion of medical men to population in various countries:—

France	2·91 per 10,000.	Hungary	6·10 per 10,000.
Germany	3·21 ,,	Italy	6·10 ,,
Austria	3·41 ,,	Switzerland ..	7·06 ,,
England	6·0 ,,	United States ..	16·24 ,,

MIDWIFERY.

To the Editor of THE LANCET.

SIR,—I have frequently wondered whether any of my professional brethren in the country have had occasion to notice a preponderance of midwifery cases occurring on Saturday night and Sunday morning over those happening at other periods of the hebdomadal cycle. Whether from chance, or from some specific cause at present (to me) enshrouded in mystery, I cannot say; but I know that, living in agricultural districts, I have gradually come to look forward to each recurring Saturday night with a presentiment, amounting almost to certainty, that it will bring some anxious husband's footsteps to my door, and his hand to the night-bell. I have made no notes on the matter, as I have always endeavoured to believe myself the victim of coincidence; but latterly the fact has forced itself upon my attention with more than usual vigour. I find that of my last twenty cases sixteen occurred either on Saturday night or in the early hours of Sunday. During the days of my assistancy, when midwifery cases fell thick and fast to my share, I always viewed with gloom the approach of Saturday night and its invariable unrest. If the experience of others should coincide with my own, it is possible there may henceforth be (at least in country practice) some, at present, undecided element to take into consideration when calculating the termination of the traditional 280 days.

I am, Sir, yours faithfully,

June 12th, 1884. SOMNOLENS.

A BOOK WANTED.

A CORRESPONDENT is anxious to obtain a copy of "The Source of Carbon exhaled by the Lungs," by Dr. E. Smith, published by Messrs. Churchill in 1859, and now out of print.

"TREATMENT OF CHOREA BY ERGOT."

To the Editor of THE LANCET.

SIR,—It was only a few days ago I read in THE LANCET of May 24th a letter in which the "almost immediate relief" of the above disease by means of ergot was spoken of. Last month, while attending a gentleman who has since died of phthisis, I was asked to see one of his little boys. St. Vitus's dance was at once diagnosed. His mother had noticed that he was restless and nervous for three or four weeks. He had met with no accident. The administration of vermifuge remedies produced a negative result. Treatment: (1) Isolation from other members of the family; (2) salt water baths; (3) one minim and a half of solution of arsenic, six minims of the tincture of perchloride of iron, nine minims of glycerine, water to two drachms. A four-ounce recipe with these proportions had a most beneficial effect, and acted "like a charm" in a very short time, without recourse to ergot or galvanism.

I am, Sir, yours faithfully,

Portobello, Scotland, June 10th, 1884. ANDW. M. T. RATTRAY, M.D.

Horatio has been misinformed.

Dr. Harkin.—The paper is marked for early insertion.

URGENT APPEAL.

To the Editor of THE LANCET.

SIR,—I trust you will kindly through your columns allow me to call the attention of the profession to the following sad case, and to invoke their generous assistance. Seven young children are left entirely destitute, their mother having died a fortnight ago of phthisis, and their father, a medical man of eight years' standing in the Finchingfield district, having succumbed to the same disease, only surviving his wife ten days, and leaving his affairs in confusion. References may be made to the Rev. Mathew Vaughan, The Vicarage, Finchingfield, Essex, who has kindly consented to receive subscriptions.

I remain, Sir, yours truly,

BASIL RONALD, L.R.C.P. & L.R.C.S.Ed.

Great Bardfield, Essex, June 16th, 1884.

APPOINTMENT OF DIVISIONAL SURGEONS.

To the Editor of THE LANCET.

SIR,—I have often marvelled how it is that the life appointment of all divisional surgeons to the Metropolitan Police Medical Department should be to all intents and purposes in the hands, in fact in the gift, of the chief surgeon. He may or may not be an excellent judge of his brethren and their work, but I contend his position as arbiter should be occupied by at least two (if they could possibly be found, which would, no doubt, be a difficulty to the unbiased mind of Mr. Holmes) nearly will not say equally) as competent individuals as himself.

I am, Sir, yours obediently,

June 16th, 1884. M.D.

LADIES' TRICYCLE.

To the Editor of THE LANCET.

SIR,—Finding some practitioners entertain fears on the question of ladies riding tricycles, I beg to ask you to grant me this opportunity of bringing under the notice of the medical profession the result of my experience, in the course of which I have induced some hundred ladies of varied ages and size to avail themselves of this most enjoyable exercise, with results which have proved highly satisfactory. But, unhappily, like many other good things, the abuse has to some extent tended to retard many ladies from adopting them. I mean by abuse neglect to observe the necessary precautions in the selection of suitable machines, dress, seating, &c. However, this trouble may fairly be ranked with the events of the past, thanks to the Coventry Machinists' Company, who deserve great praise and credit for their production of a splendid ladies' tricycle, which they have just introduced, and which should be seen by every tricyclist, possessing many great advantages over everything which has been brought out, and rendering the rider most graceful in appearance; and from the fact of its being so exceedingly easily propelled, with what the manufacturers term "shorter throw," entirely does away with the objectionable act of having to raise the feet high, only exposing a portion of the foot, not even as much as in the act of walking. As some practitioners have spoken and written so strongly against the tricycle for ladies' use, it may to some be interesting to learn my experience, which has proved so highly satisfactory, not only to those who are free from any form of disease, but to some who have suffered from various forms of uterine trouble, and have derived great benefit. Not that I consider that this form of exercise produces any direct effect on this organ, beyond improving the general health, and so promoting a more healthy action.

I am, Sir, yours truly,

Brighton, June 10th, 1884. MEDICUS.

Mr. W. T. Lewis.—We have no evidence that the medical gentleman was a party to the editorial puff.

ERYTHEMA PAPULATUM AND SPIRILLUM UNDULA.

To the Editor of THE LANCET.

SIR,—A case of erythema came under my notice a few days ago which appeared to be associated with one of the schizomycetes (spirillum undula). A girl, aged ten years, showed the characteristic spots on the right side of the body. A greyish exudation was just visible as a streak on the right tonsil. This exudation, examined under a one-fifth object glass, showed specimens which appeared identical with myconostoc gregarium in single leech-like cells. Similar specimens were obtained from the spots themselves, but the specimens were more numerous and curved. I asked the child to sketch the forms she saw most of floating in the eye, and I was interested when she sketched the common spiral form of spirillum undula, seeing that Lankester considered myconostoc gregarium a zoogloea form of spirillum undula. The patient's sister, aged fifteen, sketched similar forms, but had no rash. They had both worked in the early morning at garden work, forty-eight hours before, and about thirty yards from an open, unused cesspool. The case came only under my notice, and not in my ordinary work.

I am, Sir, yours faithfully,

May 27th, 1884. S.

RHEUMATIC GOUT.

To the Editor of THE LANCET.

SIR,—When was the term "rheumatic gout" first introduced, and by whom?

I am, Sir, your obedient servant,

London, June 9th, 1884. M.R.C.S.

ERRATUM.—By a typographical error, Mr. Hind's first initial was given as "J." The signature should have read G. W. Hind.

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Ireland's Gazette, Animal World, Liverpool Courier, Blyth Weekly News, Morpeth Herald, Kilmarnock Standard, Herberton Advertiser, Sunderland Daily Echo, Darlington and Stockton Times, Sunderland Herald, Sheffield Evening Star, Isle of Wight Journal, &c., have been received.

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